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finish

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The only independently published trade publication devoted exclusively to Porcelain Enameling and Ceramic Finishing on metal.

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Editor and publisher, DANA CHASE. Associate editors, PROF. A. I. ANDREWS and PROF. R. M. KING.

finish

CERAMIC FINISHES ON METAL

LOOK
FOR THIS LABEL

When you see VITREO on any breakfast set, table, or kitchen cabinet, you know that the top was made by one of the oldest manufacturers in the field.

In 25 years, we have learned how to design, fabricate, and enamel beautiful tops of the highest quality.

That "know how" also keeps quality at the highest point in our Jobbing Department where we make and enamel parts for many of America's leading industries.

Send us the necessary data. We shall be glad to quote on your work.

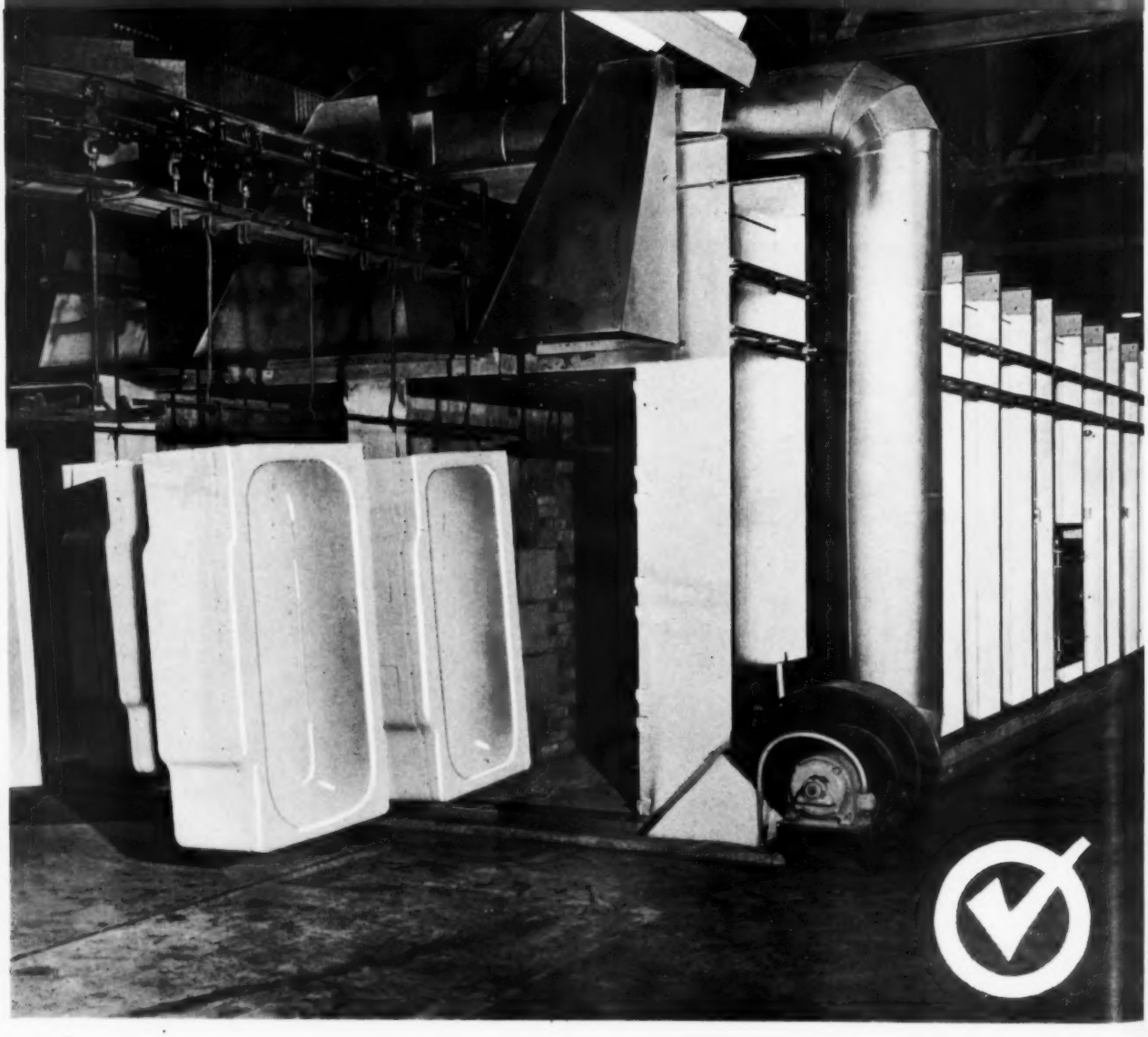
VITREOUS STEEL PRODUCTS CO.

BOX 1791, CLEVELAND 5, OHIO *(Factory at Nappanee, Ind.)*

WORLD'S LARGEST

AND MOST EFFICIENT

"U" TYPE FURNACE



HARSHAW *Tin-Bearing*

COLORS AVAILABLE

On December twenty-ninth, the Civilian Production Administration amended Conservation Order M-43, permitting the use of tin oxide produced from used tin cans, specifically for manufacturing chrome green, pink, yellow and red colors. We are resuming the manufacture of these nearly indispensable ceramic colors, and are able to accept your orders for shipment as production and the supply of tin oxide permits.

As Harshaw's standard production of tin oxide from virgin metal is still restricted, we do not have tin oxide for sale.

HARSHAW

THE HARSHAW CHEMICAL CO.
1945 East 97th Street, Cleveland 6, Ohio
BRANCHES IN PRINCIPAL CITIES

THE Finish Line

JUST ONE LITTLE WORD! — You have heard many long winded speakers start out with the preface: "just a word about this" or "just a word about that" — This finish line is going to be different. We *are* going to discuss just *one word* and furthermore we don't believe it will even be necessary to use the word on this page for you to get the point we would like to make.

Some time in the dim, distant past, someone started using a little four letter word starting with "c" to describe mechanical damage to porcelain enameled metal. Another word might have been used just as effectively but the fact remains that the word "----" caught on with technical men, plant men and users of porcelain enamel alike and soon became the accepted term among all who produced or used the material.

Four letters spell dynamite

This little four letter word starting with "c" might have caused little trouble had it been confined to the nomenclature of the technicians of our industry. That has not been the case, however, as we all know. It is an easy word to use for describing mechanical damage to enameled parts and has become the standard for the purpose regardless of who is doing the "describing" and where it takes place.

Even this situation might not have a too serious effect but for the fact that we find it has opened a beautiful avenue for competitive finishes to build up a case against porcelain enamel, largely through inference. How often do you read advertisements for competitive finishes or other competing products which include such statements as: "Highly resistant to rust and corrosion — will not "----" or crack" or "A beautiful finish that is scratchproof and will not "----" or craze". There may be little justification for the frequent use of the word in connection with present day porcelain enamels but it can, nevertheless, be heard in the everyday conversations of the manufacturer, the dealer and the prospective user of enameled products.

Why dodge the word here?

A logical qustion. If the word is so common, why be so careful to omit it's use on this page? Just this — it was decided some time ago that although *finish* might not be in position to keep others from using the word that has caused untold harm to our industry it is entirely possible and logical to refrain from *extending* its use. At least one other Editor has agreed on a similar policy.

Should it become necessary to use a term to describe mechanical damage in a technical paper or in other constructive editorial material we will use such words as "fracture", "breakage" or a term to suit the need but *not* the four letter word starting with "c".

A suggestion

Naturally we can't take the word out of the dictionary and we can't keep others from using it. We can however, as an industry, tend to retard its use in connection with our products, over a period of time, if we refuse to use it ourselves.

It is our suggestion that all those who write or publish papers on enameling subjects use the blue pencil in the future on the four letter word starting with "c" and that those who speak on the subjects do likewise.

Industry research has given us improved products of which we may be justifiably proud but much of the effectiveness of these improvements may be nullified if we continue to assist our competitors in keeping the industry's number one "Bugaboo" alive. What do you say?

Dana Chase

EDITOR AND PUBLISHER

wider use of VITREOUS ENAMEL results from Inland Research

Old markets can be expanded and new markets developed with Inland TI-NAMEL —the new vitreous enameling alloy steel recently released by the Inland research laboratories.

A thin finish coat—white, or any color—is applied directly on TI-NAMEL. The labor and equipment commonly needed for applying a ground coat are eliminated. This one advantage of Inland TI-NAMEL saves many man-hours and opens up extra floor space for increased production. TI-NAMEL also cuts shop costs by reducing re-operations, edging, and scrap. Furthermore, it simplifies metal shop operations because it has all the forming qualities of the finest deep drawing steels.

Look to Inland for modern steels for modern products.

Write for the new TI-NAMEL Bulletin! Inland Steel Company, 38 S. Dearborn St., Chicago 3, Ill.

Pending patent applications on the new enameling process and products made thereby are owned jointly by Inland Steel Company and Titanium Alloy Manufacturing Company under trust agreement.

Principal Products: Bars, Floor Plates, Piling, Plates, Rails, Reinforcing Bars, Sheets, Strip, Structurals, Tin Plate, Track Accessories.

Sales Offices: Cincinnati, Detroit, Indianapolis, Kansas City, Milwaukee, New York, St. Louis, St. Paul.

INLAND TI-NAMEL

Porcelain enamel goes UNDER the sea

A new and interesting application for P. E. to sea-going and under-sea craft

By M. J. Saltzman • PRESIDENT, SEAPORCEL PORCELAIN METALS, INC., LONG ISLAND CITY, N. Y.

Exclusive feature finish

In the issue of *finish* for February 1945, an article describing the installation of porcelain enamel in the U. S. Army Hospital Ship "Marigold" discussed at some length the use of a specially developed enamel formula for application to non-structural bulkheads and overhead linings. In that article the unusual suitability of porcelain enamel for marine use was brought out, and it was stated that more important future steps would undoubtedly lead to later developments in porcelain enamel for shipboard use due to its unexcelled qualities of resistance to corrosion, its cleanliness and elimination of the fire hazard.

The happy ending of the war now permits another disclosure of how porcelain enamel was used in solving specific shipboard problems. Our organization is naturally pleased to have had a part in what we believe can be considered another definite contribution to the war effort — another contribution entailing the use of porcelain enamel. We believe the development is completely unique. It offered a definite challenge which we tackled to the best of our knowledge, imagination and skill.

The problem

The Navy, in its operation of thousands of small craft powered with Diesel engines, had encountered a particularly vexing problem in the corrosion of exhaust mufflers. In vessels of the types of landing craft, patrol craft and submarines, where cruising range and freedom from docking for major repairs are of primary importance, it was determined that even a minor improvement in the effective length of service of exhaust mufflers and pipes would be worth many times the cost of such improvement in terms of availability of these vessels for combat or escort duty.

It is a standard procedure in design of marine Diesel engine exhaust systems to introduce cooling water into the engine exhaust line. The water used has normally been circulated through heat exchangers and has cooled the engine cylinder jacket water, lubricating oil and other elements of the design which require temperature control; and its injection into the exhaust line produces an appreciable reduction in temperature and volume of the exhaust gases. This water is picked up from the sea and is discharged back into the sea through the piping leading from the exhaust mufflers.

It can be understood that an addition to the normally corrosive action of sea water itself, this procedure introduces two other corrosive factors which have made solution of the problem even more difficult, viz, elevated temperatures and the products

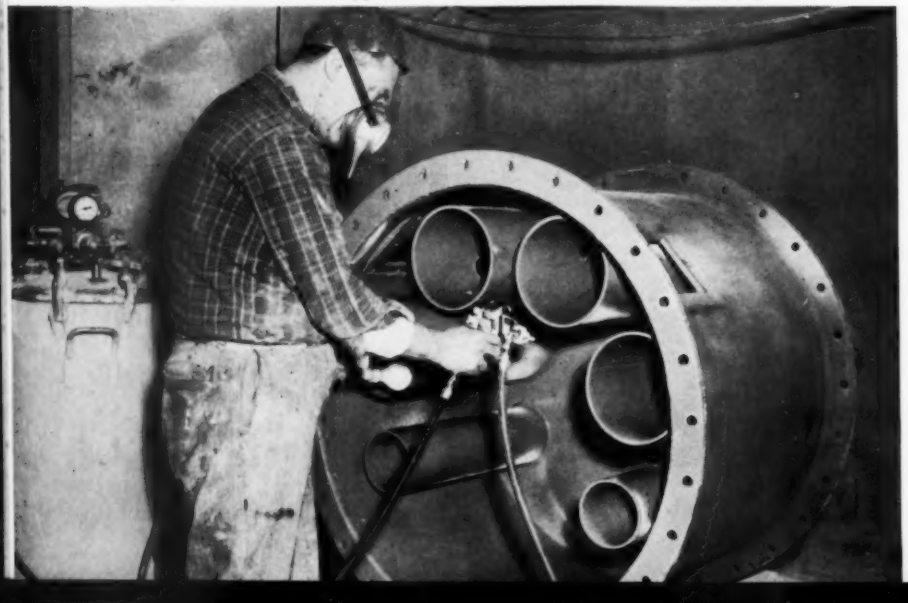
OFFICIAL U. S. NAVY PHOTOGRAPH

Submarines can now add to the life of one important component through the use of porcelain enameled exhaust mufflers.

The surface of the metal is prepared by sandblasting with silica sand.

A nickel dip further prepares the surface for porcelain enameling.

Wet process enamel is applied to all accessible surfaces by spraying.



of combustion of the Diesel fuel which are mildly sulphurous. To this aggravated corrosive condition is added the erosive effect of water droplets impinging at the high speed on the inner surfaces of the mufflers.

Evolution in design and materials

The usual material employed in pre-war days to combat this combination of corrosion and erosion in marine exhaust mufflers was cast grey iron. Exhaust mufflers made of cast iron were relatively inexpensive and had a fairly satisfactory service life considering their cost. At the start of the war, however, the Navy discarded the use of cast iron as a material of construction for use on combat vessels due to its liability to shatter from shock such as might be experienced from exploding depth charges or other concussions. Castings of steel were next tried for muffler construction without too much success. Steel castings of exhaust mufflers presented a great many problems in the foundry and this, together with the extreme pre-occupation of the steel foundries with other war-connected production, led to the use of fabricated steel designs.

The actual problems of fabrication were not difficult. It became immediately necessary, however, to locate or develop a coating material which would protect the easily corroded steel from the corrosive and erosive attacts mentioned. The first step taken in this direction was the use of "hot dip" galvanizing. Galvanized mufflers were used very extensively during the early months of the war, but their service life was too short to offer an answer to the existing problem. However, until a more serviceable coating was located, galvanizing was the standard method of protection of these parts.

Thermo-setting resins tried

During the course of the war, a specially developed phenol-formaldehyde thermo-setting resin was tried and used for many months as coating for marine exhaust mufflers. The results were definitely superior to those obtained from the zinc coating, but were not entirely satisfactory.

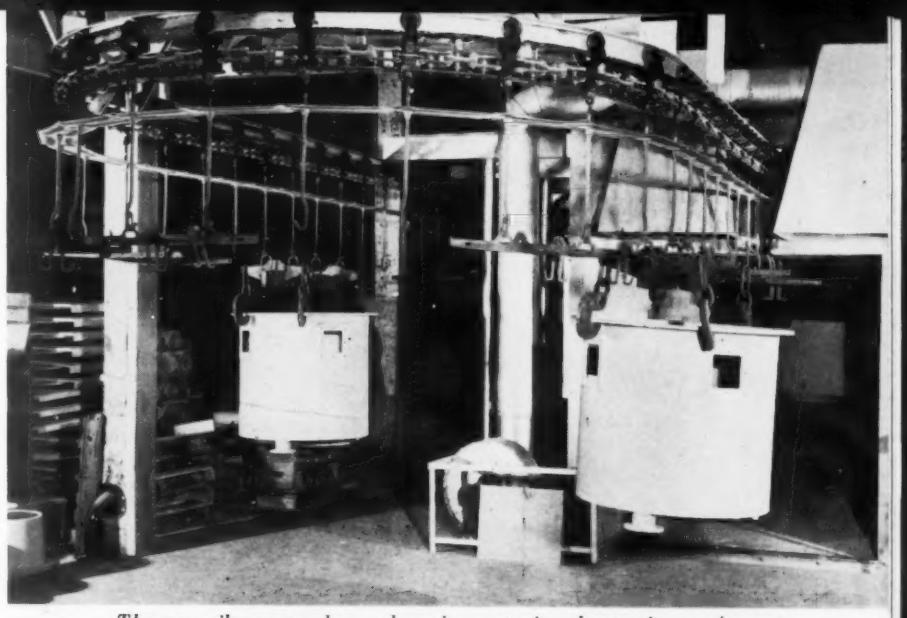
Under certain conditions ships auxiliaries have to operate without a satisfactory source of cooling water and the temperature of the exhaust gases (ranging from 500° to 900° F.) was sufficiently high to entirely burn away the organic resin coating. The obvious development from this was to find an inorganic material which could be applied to exhaust muffler assemblies in their normally fabricated state, which would be resistant to corrosion, erosion and elevated temperatures and which could withstand the thermal shocks to which exhaust systems are unavoidably subjected.

During other discussions with personnel of the Bureau of Ships, the problem of exhaust muffler corrosion was brought up with our representatives, and although nothing like it had ever been done before, and the problems of service and application seemed almost insurmountable, it was decided that porcelain enamel *might* be the logical choice for such service.

Special porcelain enamels are developed

Sample pipe sections were made up, coated, and submitted to the Navy for test at their experiment station, and although the first steps were far from perfect, they did indicate that further investigation was warranted. The Navy then placed the problem before the National Bureau of Standards and sought its cooperation in the development of formulae for porcelain enamels which would meet the requirements and the technical problems involved. After extensive efforts, the Bureau of Standards made available to the enameling industry, through the Navy Department, formulae which seemed to give evidence of filling the need, and investigation was started at our plant on the problems of application.

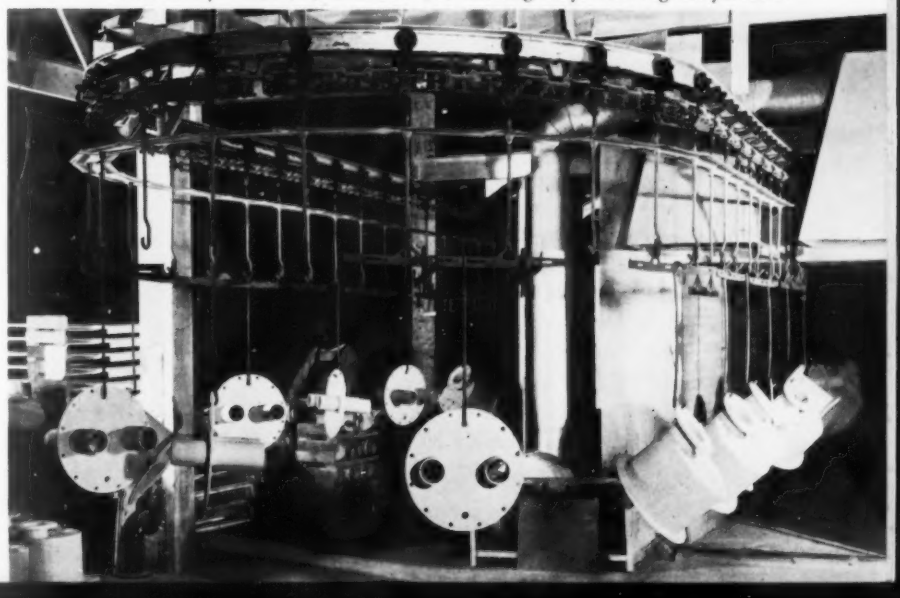
Certain well-established standards of design and application procedures have been developed by the enameling industry over the years. The close adherence to these standards is generally considered essential to the obtaining of satisfactory enamel coating on metal parts. Among these general standards is a constant re-

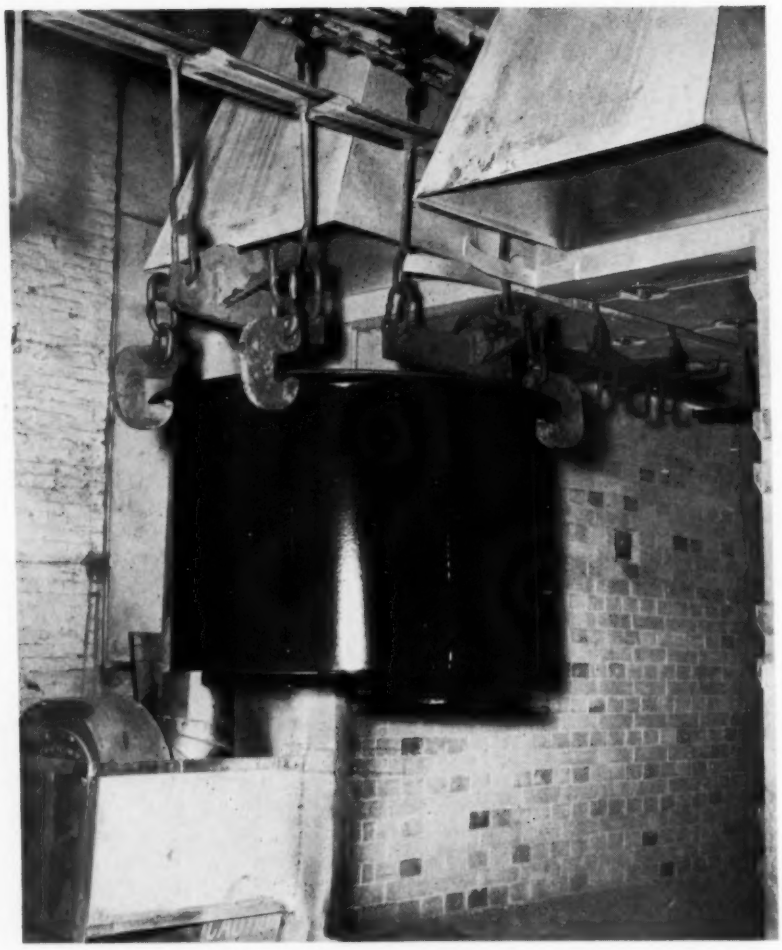


The type silencer used on submarines entering the continuous furnace.

A full view of the three assembled components of a submarine silencer.

Silencers for LCI (L) and LCT (6) landing craft entering the furnace.





Special tooling designed to handle the heavy components is clearly visible in this photograph.

quirement that all parts of a single fabricated assembly be made up of materials of the same or relatively like gauge or weight, thus permitting complete and equal firing of the coating on all parts of the assembly and therefore proper vitrification of the coating. Another major tenet is that parts must be made of "enameling iron," this requirement being based on the necessity for a high degree of metallurgical purity in the base metal and a prepared surface which provides improved bonding of the coating to the metal base. Lacking enameling iron, difficulties may be expected from boiling out of impurities at the temperatures (1550° to 1650° F.) to which the metal is exposed in the furnace. Yet another condition encountered is that most parts for custom enameling have been of relatively light unit weight, usually handled easily by one or two men. It has also been generally accepted that the best method of assembling parts for enameling was by the use of gas welding, or if arc welding was used, that all welds should be ground smooth.

Off the beaten path

In enameling exhaust silencers, these conceptions and procedures had to be discarded and means found to apply porcelain enamel to heavy parts, fabricated from practically any steel which was available, by arc welding components which varied from as thick as 7/8″ to as thin as 3/16″ in a single weldment. Even after redesigning, which broke up the assemblies into smaller parts, it still was necessary to apply the porcelain enamel to pieces as heavy as 1600 pounds, and it was impossible to grind the surfaces of the welds in many parts of the weldments.

It was found early in the investigation that the original formulae were not entirely suited to the specific problems involved in exhaust silencer work. Through close cooperation between the Navy, the Bureau of Standards and Seaporcel, a revised formula was evolved after an extended period which seemed to fulfill all of the requirements for this problem. Actual production of parts enameled with our formula was started early in 1945.

The production procedures which were worked out are, in general, adaptations of standard procedures, modified as required to cope with the problems presented by the unusual design of the units. Most of the metal surfaces were prepared for finishing by sandblasting with silica sand. This was followed by a nickel flash to further prepare the metal surface. In all instances where the enamel could be satisfactorily applied by spraying this method was used.

Certain portions of the welded assemblies can not be reached by sandblast or spray and to secure proper protection of these portions the metal surfaces were etched by acid pickling and coated by dipping or slushing. Complete drying of the wet enamel is most essential before firing and special precautions were necessary to insure that all interior surfaces were thoroughly dried before the parts were put in the furnace. Firing temperature of 1650° F. is maintained for a much longer cycle than normal, and the final coating is from .007″ to .009″ thick.

Since the start of production, thousands of silencers have gone out from our plant to all corners of the world where the Navy Department has operated and serviced its ships. By extending the service life of the exhaust systems, and thereby reducing the time required in port for overhaul, we feel that porcelain enamel has made another direct contribution to the efficiency of naval operations.

Our plant where Seaporcel is manufactured was engaged, before the war, in custom enameling for the out-

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Porcelain enamel goes to the farm

including a report on tests in a new field for glass-type finishes

PORCELAIN enamel has been found useful in the development of many new products during recent years, but one of the most interesting developments is that of a modern silo built by A. O. Smith Corporation, Milwaukee, Wisconsin, an experimental model of which has been erected on a farm near Beloit, Wisconsin.

Wesley G. Martin, research engineer in charge of the farm equipment division at A. O. Smith, and well known in the porcelain enameling field, is credited with the development of the new silo. It came to Martin's attention that in silos of the conventional type there were factors of spoilage and high labor requirements which offered an opportunity for improvement in design. The company's previous experience in the production of "glass-lined" storage tanks, water heaters and other industrial equipment opened the possibility for work in this field.

Martin started his work with the idea of accomplishing three things — corrosion resistance, spoilage elimination and the reduction of labor and occupational hazard. Early tests included the burying of coated steel parts in silage for a period of months. When the parts were found to be unaffected by the strong silage acids, development work was continued. An important problem was the prevention of air infiltrating into the silo.

"Controlled atmosphere" is a feature of new silo

Keeping the structure sealed in a manner similar to a glass jar in which food is preserved would naturally preclude the possibility of the farmer entering the structure to unload silage as it is normally handled. To answer this problem a hopper type base with an engine driven mechanism for forcing the silage out at the bottom was designed. The engine feeds "burned out" air into the top of the silo while unloading silage to prevent the entrance of oxygen-bearing air.

From the mouth of this hopper an agitator "mast" projects a few feet into the silo. Attached to it are short lengths of heavy, flexible tubing equipped with weights. A six horsepower engine turns the mast at about 30 rpm and the weights knock down enough silage to avoid "bridging." Small blades in the mouth of the hopper force the silage out.

This drawing shows the principal details of the new type silo which unloads silage mechanically from the bottom.

A large pipe can be extended from the hopper into the barn and a feed screw inside the pipe moves the silage into a receiving cart.

It is possible that the past work at A. O. Smith Corporation on controlled atmosphere furnaces, etc., may have influenced Martin in his thoughts concerning the replacement of air in the silo. He realized that an especially adjusted carburetor on a gasoline engine could be made to produce an exhaust gas similar to the atmosphere normally existing in the silo, including about 75% nitrogen and 12% carbon dioxide.

The silo is filled through a pipe running up the inside, with the lower end projecting out a few feet above the ground. The pipe that takes the burned air to the top of the silo can be opened to become an air overflow pipe during filling operations. Because it might be desirable to get into the silo on rare occasions, a man-

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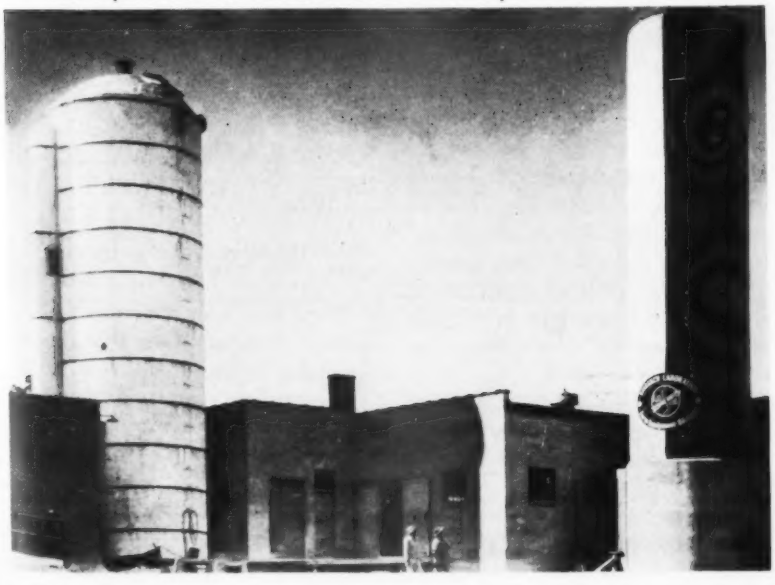
The experimental silo installed at Swiss Towns farms near Beloit, Wis.



E. U. M. C. directs an educational program

to the FUTURE American housewife

By Joan White • HOME ECONOMIST, LAWRENCE H. SELZ ORGANIZATION, CHICAGO, ILLINOIS

A LITTLE over a year ago the Enameled Utensil Manufacturers Council instituted an educational program directed to the future housewives in schools and colleges throughout America. The welcome and interest with which this program was received the country over far surpassed the most optimistic expectations of its originators.

The reasons behind the program

One of the greatest sales obstacles which porcelain enameled ware faces is the public confusion as to just what "enameled" means. The term has acquired common usage in referring to many types of paint and painted products. This confusion often works to the serious detriment of the porcelain enameling industry. The porcelain enameled utensil or fixture is many times subjected to abuse for which it is not intended, with the result that the retailer is faced with the resulting complaints. The housewife would never think to subject her glassware to sudden, extreme changes of temperature, dropping, banging, etc. The trouble lies in the fact that she very often does not know that porcelain enameled ware is actually a *glass-like* substance fused onto steel.

For several years the Enameled Utensil Manufacturers Council has devoted a major portion of its publicity effort through the newspapers, magazines and radio stations to combat this public confusion. Stories, pictures and radio scripts have all helped to tell the consumer not only what the product *can* do, but also what it *cannot* do — that is, what abuses the porcelain enameled finish cannot be subjected to and still retain its beauty of gloss and smoothness.

All of this public education helped, but the Council felt that a great deal could also be accomplished if the girls in schools and colleges — the future housewives—were correctly informed about porcelain enameled ware while they were giving their first serious consideration to outfitting their own homes. The first impressions gained in school and college cooking classes are important ones. And so the educational program was conceived and instituted.

How it was put into operation

The Council sponsored a meeting in Chicago with representative home economics teachers of high school and college cooking classes. They discussed the best possible arrangement of the material from the standpoints of workability in the classroom, experienced student reactions to similar material, most easily studied format, etc. Out of these discussions and careful plans came the Council's first educational release, the booklet entitled, "The Selection, Care and Use of Kitchen Utensils."

It was decided to publish the booklet in two editions: one for teachers and one for students. They are fully illustrated with photographs and line drawings, punched to fit the standard 8½" x 11" classroom notebook. The booklets contain sections on the history of cooking utensils generally, the history of porcelain enameled ware, how porcelain enameled ware is manufactured, what the different kitchen utensils are used for, how to store porcelain enameled utensils for efficiency, how to clean the ware properly and all the multitude of facts about porcelain enameled ware which are of interest and fit into the home economics classroom work.

A mailing list containing the names and addresses of 28,000 high school and college home economics teachers was used. To each of these teachers was mailed one copy of the teacher's booklet and one copy of the student's booklet. Enclosed with each mailing was a printed reply card on which the teacher could request the number of copies of each of the booklets which she required for her classes.

The coupon services of various of the magazines reaching home economics teachers were called upon to help distribute the booklets into the proper hands. The advertisements of the Council included request coupons in the advertising copy.

The original mailing of the booklets to 28,000 teachers began during the autumn of 1944. Since that original mailing, the Council has distributed *by request* an additional 264,000 booklets to teachers of home economics. Requests continue to pour in from school teachers all over the nation. The total distribution to date of "The Selection, Care and Use of Kitchen Utensils" has reached over *292,000* copies, a significant evidence of what a group of manufacturers can accomplish through a joint educational program for their product!

The wall chart

More recently the Council published and distributed an attractive two-color wall chart to all home economics teachers. It covers many of the major points contained in the booklets. Measuring 34" x 44", the chart is designed to hang on the classroom wall and is used as a visual aid in conjunction with the study of the booklets.

What the educational program will accomplish

We are still too far away from a normal production and consumer buying situation to be able to judge the immediate effects of any educational effort carried on during the shortage period.

However, E.U.M.C. is certain that

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See wall chart — opposite page

PORCELAIN ON STEEL ENAMELED KITCHEN UTENSILS

DOUBLE BOILER

Especially recommended for cooking foods which require indirect heat such as puddings, scrambled eggs, sauces, icings and cereal dishes. May also be separated and used as two porcelain enameled sauce pans.

PUDDING PAN

Can serve as casserole or dessert dish. May be brought to the table or used in oven or refrigerator.

REFRIGERATOR DISH

Vegetables and fruits keep every fresh in covered porcelain enameled refrigerator dishes.

BAKING PAN

Rectangular in shape. Useful for baking cakes, roasting small pieces of meat, cooking salads, or baking cookies.

DISH PAN

In addition to washing dishes, porcelain enamel dish pans may be used for sterilizing canning equipment, boiling out dish towels and cloths, dyeing garments and washing out small quantities of clothing.

PIE PLATES

Porcelain enameled pie plates bake a crust more quickly and evenly.

COFFEE MAKERS

Three types: percolators, dripolators and coffee boilers. Their smooth finish guarantees true flavored, brilliantly coffee at all times.

TEA KETTLE

Porcelain enameled tea kettles are handy to have on the range because they can provide hot water at a moment's notice.

MIXING SPOONS, LADLES

Porcelain enameled spoons match the finishes of other utensils, while ladles are excellent for spooning mixtures into serving dishes or while canning.

COLANDER

Fresh vegetables and fruits are easy to wash in colanders before serving or storing. Acid-resistant porcelain enameled ware colanders, do not stain and are simple to clean with soap suds and water after use.

SINK STRAINER

Porcelain enameled sink strainers match the sink, range and tables. They do not stain readily and are easy to keep sanitary.

TRAY

Porcelain enameled utility trays are practical for assembling ingredients while measuring out foods in a recipe, as a working surface and as trays for the icebox.

KETTLE

Porcelain enameled kettles are easily distinguished by their bail handles, and are useful for large quantity cooking and boiling and preserving.

ROASTER

Heat is conducted efficiently in this type of roasting pan. Only low to moderate temperatures are required, thus preventing excess shrinkage.

SAUCE PANS

Available in one, two, three and four quart sizes for cooking sauces, vegetables, fruits, barnes, syrups or for heating leftovers. Handles are welded.

SAUCE POT

Uses include cooking large quantities of fruits and vegetables, stewing, braising or any simmering operation.

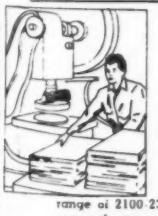
MIXING BOWLS

Come in several sizes. They are deep enough to permit freedom during beating or mixing, and may be nested for easy storage.

WATER PITCHER

For filling water glasses at the table, for icebox use and for facility in pouring pancakes and waffle batter, porcelain enameled water pitchers are an invaluable aid. Their smooth, glossy finish makes them easy to keep clean and sanitary at all times.

Manufacture of Porcelain on Steel Enameled Ware



1 Making the Base: The base of porcelain enameled utensils is made from sheet steel, carefully selected. These sheets are cut, drawn and smoothed into the necessary shapes by means of huge presses and spinning lathes. Several operations are needed to make one utensil.

The sharp edges must be rounded and smoothed. This is called "beading." Handles, ears, spouts are attached by an oxy-acetylene, or oxy-hydrogen weld or by an electric welding process.

2 Preparing the Frit: Many inorganic substances are required to make the coating for porcelain enameled ware. These ingredients are mixed and placed in a smelting furnace until the temperature reaches a range of 2100-2300 F. This smelting or fusing process takes from 2½ to 4 hours, depending on the type of frit.

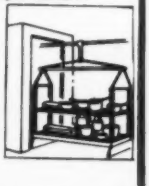
When the smelting time is up, the furnace is tapped and the melted enamel is drawn off into a vat of cold water. As the hot enamel comes in contact with the water, it breaks into tiny pieces which are called "frit."

3 Mixing the Coating: After the frit has dried, it is mixed with clay, opacifiers and water and placed in a cylindrical mill with flint or porcelain pebbles. Electrolytes and color oxides are also added. When the mill starts revolving, these various substances are ground by the porcelain balls in the mill and mixed. When thoroughly ground, the enamel is passed over a 40-60 mesh screen to remove any unground pieces and flakes of pebbles, and then over a magnetic separator to remove any iron present. The enamel is then stored in large tanks after which it is about the consistency of thick cream.

4 Cleaning and Pickling Before Coating: Before the steel base can be coated with the enamel, it must be cleaned properly. This process is called cleaning and pickling. The steel shapes are bathed in a number of vats containing chemical solutions, acids, alkalis and hot water, and all foreign substances such as grease and scale are removed. After washing, the utensils are dried in hot-air chambers.

5 Applying the Coating and Trim: Utensils are not merely dipped in the creamy solution of enamel, but they are twirled by expert hands to assure evenness of application. After the coating is applied, the utensils pass through specially constructed drying chambers, and then through firing furnaces to melt down the enamel at temperatures ranging from 1500 to 1700 F. If the utensil is multi-coated, each coat must be fired before the second or third coat can be applied.

Porcelain enameled utensils usually have black, red or blue trimming on the handles, spouts, ears and beads. To apply color to these parts, the first cover coat of enamel is sponged off, and the contrasting color trim applied. This is done before the utensil goes into the furnace for firing.

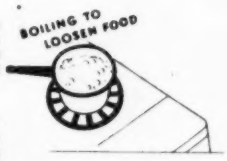


Care and Storage of Porcelain Enameled Utensils

Use Low Heat to Save Fuel: Only low to moderate heat is necessary when cooking with porcelain enameled utensils, because they conduct heat efficiently. When the food comes to a boil, the flame or heat should be lowered, thus saving fuel.

Handle With Care: Porcelain enameled utensils should not be allowed to bang carelessly against faucets or other equipment. When cooking, place the handles so that the utensil cannot readily be knocked off the range.

Treatment for Cleaning: Soapsuds and water are the best all around cleaning treatment to give to porcelain enameled utensils. The natural shine which these utensils have is permanent, and the satiny luster is easily restored after this gentle cleaning.



Loosening Burned Foods: Neither scraping nor scouring is necessary for removing foods which have burned or dried on porcelain enameled utensils. Soaking overnight with soapy water will loosen the matter sufficiently to wash it off in most cases. In the more stubborn cases, place a small amount of water and soap chips or powder into the utensil, and let simmer slowly for a few minutes to loosen the food. Abrasives are unnecessary when cleaning porcelain-on-steel enameled ware.

Getting Rid of Hard Water Scale: The lower sections of double boilers and porcelain-on-steel enameled ware kettles as well as other types of utensils which are used for boiling hard water constantly, often gather a mineral deposit called "scale." This can be removed by boiling water with a small amount of baking soda, ammonia or lemon juice in utensil for 5-10 minutes.

Removing Common Stains: Stains on coffee pots and tea kettles may be removed with a non-abrasive powder like common soda. This is best done by allowing a small amount of soda and water to simmer in the utensil. If this proves ineffective rub a paste of the soda and a small amount of water on the stained portion.

Efficient Storage Hints: Porcelain enameled utensils which are frequently used should be placed at the front of cupboards and shelves to make them easily accessible. Bowls, sauce pans, kettles and similar utensils can be nested to save space. Vertical storing is suggested for lids, trays, etc. All utensils should be stored in the area in the kitchen where they are most needed.

An appraisal

of the general business outlook

By L. S. Hamaker • ASST. GEN. MANAGER OF SALES, REPUBLIC STEEL CORPORATION

FORECASTING is a risky pastime and much of what I have to say is opinion, based on the best facts available to us. Since the steel business is a very sensitive barometer of business conditions in general, we try to study trends in many lines of business for their possible effects on our own operations.

If you try to follow the published writings of the various economists plus the cackling that goes on in certain government quarters about sixty million jobs, you can be excused for being slightly punch-drunk, particularly since even taxi drivers have become economic experts.

One school of economic thought predicts a period of very high business activity for a number of years, and we ourselves believe that if the excess electric furnace capacity, which was put in for aircraft steels and armor plate, is left out of the consideration, the steel industry faces capacity operations for at least three years and perhaps longer.

No steel market of importance has been seriously invaded

The accumulated shortages of consumers' durable goods are so well known and so widely publicized that it is hardly necessary to quote any figures. Our studies indicate that all of our major steel consuming markets are still there and for a few years at least many of them apparently will need more steel than we are able to give them. We can find no evidence that any steel market of importance has been even seriously invaded by competing materials.

The automobile industry, normally the largest steel consumer, has entered the peace, if I may use that term in this connection, with the largest backlog of unfilled demand in its history. Back in 1941, with six million unemployed, Americans were driving 29 million automobiles. By the end of 1945 we were down to around 23 million or less. If employment in the years immediately ahead is higher than in 1941, which seems quite likely, we may need 33 or 34 million cars instead of 29 million. In any event, the industry itself estimates that if it operates at a 5 million car annual rate, a record rate by pre-war standards, it will take until 1950 to catch up.

Editor's Note:

"Steel" has long been considered a most reliable yardstick for the measurement of general business conditions. Presented here are the views of an executive of one of the country's largest producers. His forecasting will be of interest to every finish reader.

We likewise do not expect radical changes in car design. Big improvements will be made and made rapidly, but the predictions of small air-cooled engines running on high octane aviation fuel don't look too practical at the moment. The truth is that the super-fuels must be so heavily leaded to retard the flash that they can only be used in motors which get a complete overhaul after every two or three hundred hours of use, which would be impractical in automobiles. Also, when it is considered that each cylinder on the larger aircraft engines develops as much power as a Cadillac car, the question arises as to the safe and economical application of such power to a passenger automobile. The plastics and light metals I'll touch on later.

Two tons of steel for a small house

All experts agree that a tremendous housing shortage exists in this country. The market is estimated at one million homes a year for at least 10 years, and we have never come close to building a million homes in a single year before. Even a small home, with its appliances, requires nearly two tons of steel. High costs may nip this budding boom, though the economy can support somewhat higher costs without too much difficulty. As recently as 1939, one-third of the families in this country had incomes below $1,000 and two-thirds had less than $2,000 per year. In January of 1945 86% of all families had incomes above $1,000 and more than half were over $2,000. In actual numbers, the incomes over $2,000 increased from 10 million families to nearly 21 million families. This brought home-owning within the range of possibility for millions who could not previously afford it.

To satisfy the tremendous back-up demand for homes, automobiles, appliances, furniture and almost everything else, the American public has on hand or within reach a huge volume of cash. There has never been anything like it in the history of this country or of any country. There have been so many guesses at the sum total of private savings that I will not attempt another one, but certain figures are known and can be checked. For example, savings deposits in banks are now about 30 billion dollars. Life insurance in force totals 148 billion. National service insurance now has a face value of 125 billion. I don't know what the War Bond total is, but it runs into many billions of dollars. Please remember that before the war the total national income never reached 100 billion dollars. All of this provides a satisfactory answer, to my mind at least, to the question frequently heard, "Where is all the money coming from?"

The trend is to smaller families

Another impetus to more homes is

the fact that the average family size is declining, while the medium age is changing rapidly toward an older population in this country. The average family size was 4.1 persons in 1930. It had declined to 3.8 persons by 1940. The medium age, or the age point which had half the population above it and half below was 26.5 years in 1930. It was 29 years in 1940 and is rising. Smaller average families means more dwelling units to house the population. Higher average age means more conservatism; tending toward increased home ownership. *(Population up 7 million since 1940, will rise another 6½ million by 1950. 10,500,000 births since Pearl Harbor.)*

Here again our studies indicate that post-war houses will not differ greatly from pre-war houses, and the dream homes with air-conditioning, solar heat, roll-away roofs, concealed automatic lighting and similar radical departures will be far beyond the reach of the average citizen for a long time to come.

The farmer has come out of the war in the best financial condition in his history and will be a very large buyer of many things made of steel. He has piled up a far bigger list of deferred wants than the average city man and has the cash to satisfy them when implements, building materials, fence, nails, posts, farm freezers and a myriad of other things become available. I make no pretense of knowing the farm market intimately but it seems to me that the farmer may be a big market factor for relatively few years, though he will have to keep up with the rapid advances in farming technology.

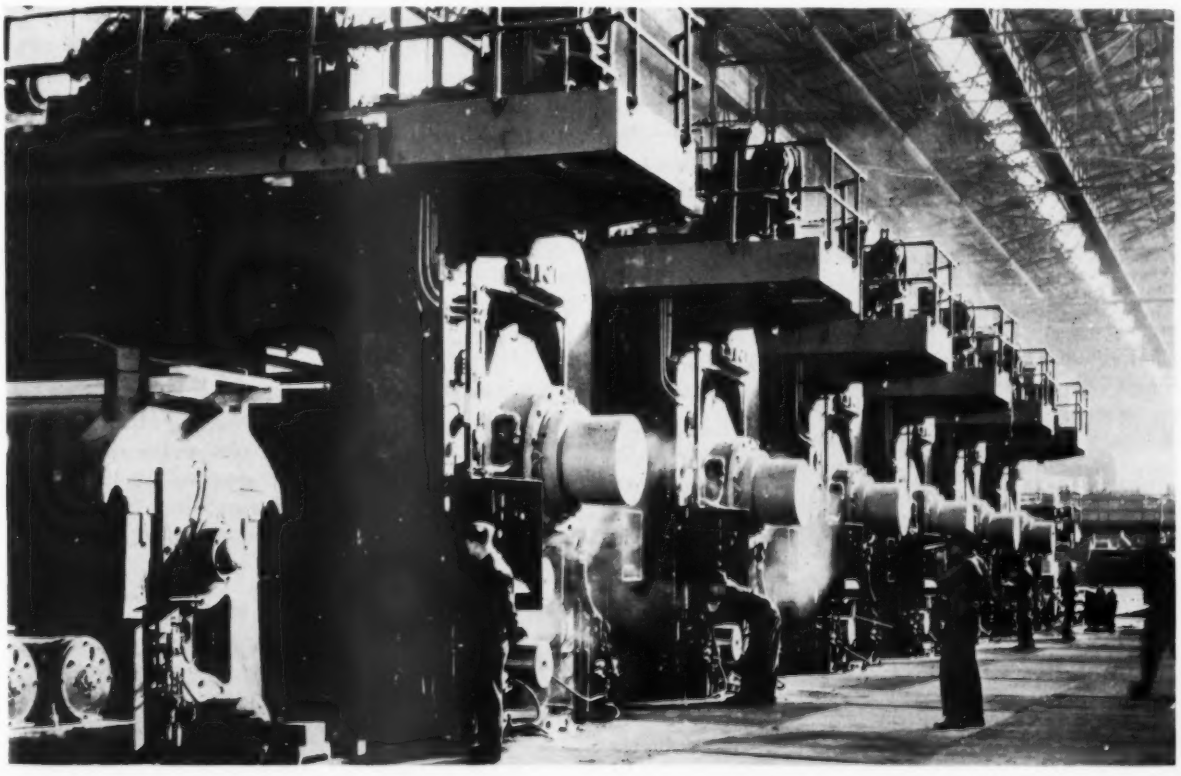
The old "farm surplus" problem

It seems reasonable to suppose that our Allies, after two harvests at most, will return to their normal sources of food supply. Our own food production, up 25% during the war, will continue at a high level even if prices fall, for the forces pushing it up, such as improved technology, are largely independent of price changes. This looks like large agricultural surpluses in the relatively near future and if they are large enough, farm commodity prices will break through the government support levels. It is estimated that if national income increases 20% in the next ten years, with a normal population increase of 5%, domestic food demands will rise 9% while production will increase 15% in the same period. The old farm problem of chronic surpluses has not been permanently cured by the war.

The railroads, always a big steel customer, will require great tonnages for deferred maintenance alone. The average major road will replace 10% of its main line rail each year. This hasn't been done since the war began. The wear and tear on motive power, rolling stock, bridges, structures and buildings has been enormous.

We do not expect an extensive program of new freight car buying by the railroads. Existing equipment has handled the largest volume of freight in our history for the greatest number of ton-miles and there is no reason to expect a greater total freight volume in early post-war. We expect a replacement volume of around 85,000 cars per year.

". . . if the excess electric furnace capacity, which was put in for aircraft steels and armor plate, is left out of the consideration, the steel industry faces capacity operations for at least three years and perhaps longer."



Passenger equipment is an entirely different story. A check of the leading roads shows that almost without exception they are planning, or have on order, light-weight, high-speed equipment with which to provide a low cost service to counter the increased competition of the airlines. I doubt that there will ever be another sleeping car built with curtains in the aisles.

And speaking of airlines, it may be well to take a quick look at the aircraft industry. At its war-time peak it was producing between 8 thousand and 9 thousand planes a month. Before the war this country was the world's best equipped with regard to commercial airlines. We had a grand total of 372 planes in service on all runs, roughly one or two day's output for the present industry. No matter how fast civilian and commercial flying expand, we do not see how this great industry, the war-time leader in dollar volume, can operate above 5% of its war capacity.

A helicopter in every back yard?

The enthusiasts who predict air freight on a grand scale and a helicopter in every backyard will have to wait a long time to see their dreams come true.

Air freight today costs 15¢ per ton-mile. The railroads do it for less than one cent. A private plane requires a minimum of $2,500 worth of instruments alone for safe flying and navigation. This puts flying beyond the reach of most citizens unless they are satisfied to stay close to home or navigate by landmarks on the ground such as highways and railroad lines.

I will not go into detail on projected public works, though it is well to mention that a national trunk highway system is in the final planning stage. These super-highways will be built to by-pass or over-pass small cities and towns with grade crossings eliminated. A great network of feeder roads will be necessary and large tonnages of steel will be required for reinforcement, guard rails, drainage and structures. *(A sign business worth considering)* Our present highway system is inadequate for any large expansion of automobile traffic in the heavily settled sections of the country.

Light metals and plastics

I would like to touch on the light metals and plastics and their probable effect on the steel industry. Aluminum capacity was multiplied 7 times since 1939, and the disposal of government owned plants is now one of the major headaches in Washington. The peak production of aluminum was 1½ million tons and 90% of it went into the aircraft industry. Whether peace-time applications can be found for this tonnage of a material that costs roughly ten times as much per pound as steel is highly questionable. In any event, the total aluminum production, allowing for the weight differential, amounts to about 3% of the steel industry's capacity. We could have produced the 1944 aluminum tonnage (their peak year) in 4 days.

Magnesium is the other light metal which had a big wartime boom. Production was expanded to 70 times the pre-war level and the metal was largely used in incendiary bombs, flares and certain aircraft applications not subject to shock or stress, such as cowling, dust covers and instrument panels. It is one-third lighter than aluminum but also more expensive, costing 20½ cents per pound in the ingot. Magnesium has many fabricating limitations and its physical shortcomings make its use unlikely for applications where structural strength is required. The output is small by steel standards, the total annual capacity being around 265 thousand tons.

Now we come to the plastics, a loose term which covers a great number of different but related products.

Plastics are not a tonnage industry, as practically all metals are. Even magnesium is being produced in twice the volume of the entire plastic output.

In the case of plastics, the economic factors may again be expected to function. No one has yet developed a plastic molding powder to sell for less than 14 or 15 cents a pound and the transparent and translucent types are much higher.

The plastics have some major physical shortcomings which make it improbable that they will be used for structural applications. The strongest plastic has a tensile strength of only 30 thousand lbs. per square inch. Plastics are woefully inferior to metals in sheer strength, impact and flexural strength.

They lack surface hardness and most have poor resistance to abrasion. Automobile windows of plastic material have been tried but the abrasive action of dust particles in the air soon destroyed their transparency. The plastic automobile top, one of the fondest dreams of the air-brush engineers, looks impractical for this reason, if no other.

Great power is required to mold plastics in the larger sections and the process is very slow because heat must be applied to the dies and the material permitted to flow. In the absence of any method of joining plastic components except by mechanical means, such as bolts and screws, it seems unlikely that any large units such as refrigerator cabinets, for example, could be made except at prohibitive cost.

Plastics likewise cannot be used where continuous heat above 400° F will be applied, and frequently much lower temperatures cause embarrassing problems. For example, plastic pipe was tried experimentally in several units of a government housing project recently. Aside from some difficulty in making joints, it worked all right until someone ran the water temperature above 130° F. While the plastic pipe did not fail, it got decidedly limp.

Plastics have their advantages, such as adaptability to built-in color, surface permanence in ordinary use, low specific gravity, resistance to corrosion, good electrical insulating properties and many others, but they won't have any adverse effect on the steel business.

The export picture

There is one aspect of our industry I should like to touch on and that is the export market. The United States has never been a heavy exporter of

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A new questionnaire to determine dealer opinion

COMPLETE kitchen installations will be handled by 89 per cent of electric appliance dealers according to figures released early in January by Edison General Electric (Hotpoint) Appliance Co. To secure information on postwar plans, 12,000 dealers were queried.

The survey was divided into four groups of questions concerned with: 1. The way dealers will display refrigerators; 2. Attitude on trade-ins; 3. Questions concerning home freezers; and 4. Questions on "the type of store."

Final tabulations, representing more than 20 per cent of those receiving the survey, indicate that while almost 90 per cent of those answering will install complete kitchens" for consumers, approximately one-half will "display complete operating kitchens" in their showrooms. According to Floyd M. Slasor, manager, refrigerator sales division, that change in merchandising technique is the greatest single new development in post war refrigeration selling. Previously, dealers sold refrigerators mainly from straight model selection displays.

How about refrigerator trade-ins?

Almost 30 per cent of the dealers think that trade-ins will figure in less than 10 per cent of refrigeration transactions in immediate post war; although another question of pre-war experience brought the response that 30 per cent of pre-war sales included trade-ins.

A surprising 45 per cent of those answering said that they would handle only one line of refrigerators while, at the other extreme, 13 dealers hopefully said that they would display nine different makes of refrigerators.

The question of home freezers

It is believed that dealers are familiar with consumer thinking because of war-time close associations on service matters, and that there is resulting importance in their opinions on the possible pattern of development of the market for home freezers. That question, bringing out that most dealers feel that home freezers have a limited appeal for city- and town-dwellers, headed a group of questions on that appliance.

Considerable new information developed by the survey was included in an approximate 1,000 "written-in" comments.

The 12,000 dealer list was selected from the 20,000 dealer mailing list receiving the company's home study

course, "Planned Electrical Merchandising," before it was temporarily suspended with the August issue.

The tabulated ballots indicate that more than 20 per cent of those receiving the questionnaire are opening new stores. A majority of those dealers will use "operating kitchen display."

As to method of selling

The No. 1 question, "Which way will you sell?", brought the response that 58 per cent will use the old-established "model selection" display method, in conjunction with a complete kitchen or "work-center" display, while only 25 per cent will depend entirely upon straight "model selection" displays. That duplication of figures indicates that some dealers will have "complete kitchens" on display, but will continue the use of a line of models to make their sales.

"We are going to give the closest study to the many constructive comments brought in by this survey; they mean that dealers are thinking for themselves, and that means a healthy condition in our industry," said Mr. Slasor. He further expressed Hotpoint opinion by adding, "we are pleased with the keen interest shown in complete kitchens. That means that the advice supplied by manufacturers and editors for the past several years has not been mis-directed. Most dealers are proceeding on good faith, but they are gaining an advantage, because competitive conditions will quickly bring out the greater profit opportunity of this type of display."

On the question concerning trade-ins, 1284 (53%) dealers said that they will be set up to "re-condition" old models, while 625 said that they would not offer that service, and 413 did not include an answer to that question. One answer to the large number of "no answer" may be expressed as a "waiting attitude."

"Most dealers appear to feel that a straight, no trade-in policy is the best merchandising bet for immediate post war selling. Many commented that present boxes were worn beyond the point of good 're-conditioning for resale'."

Dealers are less optimistic than some others in the industry concerning the market for home freezers. They may see more opportunity in that appliance when food purveying concerns once establish home delivery routes for frozen products. A small group of 22 dealers marked the questionnaire that 75 per cent of all homes would buy the new devices. Hotpoint officials estimate a result closer to 25 per cent.

Territorial distribution of survey

Alabama	1.5	New Jersey	2.1
Arizona	0.2	New Mexico	0.5
Arkansas	1.5	New York	6.6
California	4.0	North Carolina	3.5
Colorado	0.7	North Dakota	0.4
Connecticut	2.3	Ohio	6.9
Delaware	0.3	Oklahoma	1.5
Florida	1.2	Oregon	1.8
Georgia	1.9	Pennsylvania	7.3
Idaho	0.5	Rhode Island	0.5
Illinois	7.7	South Carolina	0.6
Indiana	3.7	South Dakota	0.3
Iowa	3.0	Tennessee	1.5
Kansas	2.1	Texas	4.4
Kentucky	1.4	Utah	0.7
Louisiana	1.1	Vermont	0.4
Maine	0.4	Virginia	3.0
Maryland	0.9	Washington	2.0
Massachusetts	2.4	West Virginia	0.6
Michigan	4.1	Wisconsin	4.7
Minnesota	2.8	Wyoming	0.1
Mississippi	1.3	Washington, D. C.	0.2
Missouri	3.6	Misc.	0.1
Montana	0.4		
Nebraska	0.9		
Nevada	0.1		
New Hampshire	0.3		100.0%

Editor's Note:

In preceding issues finish has presented a number of consumer surveys by leading research organizations measuring the opinions and requirements of the buying public. Another important question in the minds of product manufacturers has been that of dealer opinion on such subjects as display methods for major appliances, public acceptance for home freezers, and the extent to which a trend to "complete kitchen" sales will replace merchandising of single appliances and equipment items.

The survey results presented here throw some light on these questions. The information should have a deep interest to the entire appliance field because it represents opinion at a point before active merchandising for postwar gets under way. It shows the most recent thinking of a cross section of the nation's retailers.

The subject of complete kitchens vs. individual appliance sales has been controversial. If we may judge to some extent from this survey and from the displays at current national marts, there is a swing to ensemble merchandising. Should this trend become a reality, it could logically have an ultimate effect on company policies related to horizontal expansion as against vertical expansion.

Dealer comments

Following are a few of the comments concerning trade-ins: 9.3% of those answering said, "No trade-ins until one year from now"; 9.3% said, "Don't believe we will have many trade-ins"; 4.6% said, "Trade-ins are losses"; 8.3% said, "Present discounts will stifle trade-ins"; 7.4% said they "Expect to junk most trade-ins"; 14.8% said "Do not intend to take trade-ins"; and 8.3% said "Will take no trade-ins under OPA prices". In contrast, 2.8% said "Competition will determine amount of trade-ins"; 3.7% said "Will sell trade-ins to second hand dealer"; and 9.3% said "More trade-ins later."

Some opinions on the home freezer subject are expressed in the following selections: 39.9% said, "Refrigerators complete in demand"; 7.5% said, "Freezer alone in demand"; 5.1% said, "Price will control sale of refrigerator combination"; 16.5% said, "Farming area will go strong for freezers"; 7.5% said, "Local locker plant"; 0.9% said, "Refrigerators with large freezing complete"; 0.3% said, "Home freezers are still a luxury item"; and 0.9% offered the following, "People who have refrigerators will buy freezers, new customer will buy combination."

Opinion remains somewhat divided as to the "complete kitchen" method of selling. As a starter, 35% said definitely that "We intend to sell many complete kitchens," while 10% said, "Selling merchandise from complete kitchen is not wise, especially refrigerators. Straight model selections are best. This keeps customer interested in what she wants to buy." Another 5% said, "A complete kitchen will enable salesmen to make larger sales with less time loss"; 5% said, "Complete kitchen too high in cost for many sales"; and 10% expressed the opinion that "If complete units are so constructed as to make complicated installations dealers will leave them alone for contractors."

The territory covered by the survey included every state, plus the District of Columbia.

Central district enamelers club

has record attendance at first meeting

THERE was enthusiastic response to the call for the first postwar meeting of the Central District Enamelers Club which was held Friday evening, January 11, at the Hollenden Hotel in Cleveland. There were over 100 at the dinner, and Norman Stolte, The Enamel Products Company, Club president, estimated an attendance of approximately 125 for the meeting and program.

Steel man is featured speaker

L. S. Hamaker, assistant general manager of sales, Republic Steel Corporation, was the featured speaker with a talk entitled "An Appraisal of the Business Outlook." Mr. Hamaker gave a clear picture of conditions in the steel industry and translated his data into a forecast for general business.

It is natural that porcelain enamelers should listen attentively to what Mr. Hamaker had to say, due to the dependency of enameling activity on steel production. (An adaptation of Mr. Hamaker's talk is presented in full in this issue of *finish.)*

Clawson urges expanded enamelers club activity

C. D. Clawson, vice president of Ferro Enamel Corporation, in his talk

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TWO SPEAKERS AND THE CLUB PRESIDENT

Left: L. S. Hamaker, Republic Steel Corporation — "We can find no evidence that any steel market of any importance has been seriously invaded by competing materials."

Above: N. H. Stolte, The Enamel Products Company—Club President—"There might be advantages to all in coordinating the work of the various Enamelers Clubs."

Right: C. D. Clawson, Ferro Enamel Corporation—"We have an excellent opportunity to make this one of the strongest clubs in the country."

finishfotos

More photos on pages 26 & 27.

Circle: Fred Iliff of Harshaw Chemical presents his best smile.

Right: Harry Dowds of Mullins' Warren plant was caught off guard by the camera man.

SNAPSHOTS AT THE

Above left: Wilbur Meyer & Bob Pargeon of Clyde Porcelain Steel appeur to enjoy the entree.

Above: Bud Zechman and Adolph Baumgartner of American Stove, with their attention focused on something important.

Right: Enamel Products was well represented here by Clyde Berry, Bert Persons, Walter Paul and Joe Schuldheis.

"Hey, Eddie!" says the camera man, and catches this quick shot of Eddie Eckels of General Electric's Erie, Pa., plant.

"You don't say," says Jack Trees, Holland-Rieger Division, Apex, to his neighbor at dinner.

"Soup's on, and am I hungry!" says Dave Cable of W. B. Lawson as he prepares to enjoy the repast.

Below: The subject could be spray equipment but probably isn't. It's Roger Whitell, The DeVilbiss Company, talking with John Lannan of Westinghouse.

HEENAMELERS MEETING

finishfotos

Right: Toledo Porcelain's representatives are on deck. Here we see Dan Meeker and P. A. Beier.

Below: This "International" group includes Morgan Durrant, Frigidaire, Canada; Larry Tucker, Bill Grieg, Cliff Andrews and Bill Griffiths of Ferro Enamels—Canada, Australia, Cleveland and England, respectively.

Below: There must be some reason for that sly look from Dan Boehm who represents the Salem plant of Mullins Mfg.

Furniture and appliance marts

are jammed with would-be buyers

ALTHOUGH there are 225,000 beds in some 1385 hotels in and around Chicago, all of these and more were needed during the period of the Furniture Mart and allied shows held in Chicago during early January, according to Lawrence Whiting, president of the American Furniture Mart, who spoke before the annual Press Club luncheon at the Mart.

The Housewares Show drew a big crowd, but even a larger crowd of buyers, estimated at 25,000, followed for the markets at the American Furniture Mart and Merchandise Mart during the two succeeding weeks. It was reported that at least 225 people were housed in undertaking parlors, and that others were commuting from cities as far distant as Milwaukee, Wisconsin; South Bend, Indiana; and Clinton, Iowa, taking advantage of the fast trains serving these cities.

National Retail Furniture Association executive speaks

At the Press Club luncheon Leo J. Heer, Washington vice president of the National Retail Furniture Association, gave a most interesting summary of the present situation as it affects dealers and manufacturers alike. One reference in his talk should be of particular interest to enamel products manufacturers, as it had to do with the use of color. He said: "Already announced, launched and to be given more detailed clarification by the floor coverings industry at this market is its color correlation program that for the first time brings to home furnishings a long recognized need. Known by the initials BHF, which stand for Basic Home Furnishings, here is a practical down-to-earth coordination of color that makes possible color harmony throughout the home. This is not confined to any price bracket — it has a place in all ranges. Think of what coordinated color in floor coverings, upholstery, covers, draperies, and all the room accessories means in terms of more livable and sense satisfying homes. Think what it means as a fashion factor. Get the more complete details of that while you are here — and get also the story of the complete follow through. The story of how retail home furnishing salesmen will be exposed to training that will enable them to tell as well as show the story to consumers." *(BHF principles may offer opportunities for study in relation to the kitchen and laundry.)*

Another point which Mr. Heer touched on should be of interest to producers of architectural porcelain. He said: "Increasingly, consumers will see these jewels of home furnishings in appropriate settings. Interest in modernization of home furnishings stores has inspired the National Retail Furniture Association to publish one of the most comprehensive guides on the subject ever produced, and its reception has made necessary a second and yet more complete treatment of the subject."

In referring to CPA reports on reconversion production, Mr. Heer said: "November shipment of refrigerators from plants representing slightly more than half of the pre-war industry totalled 77,000 units compared with a prewar rate of 200,000 a month. That will climb.

"Domestic washing machines are now being produced at approximately 50% of 1941 production rates. It is of interest to note that despite some continuing shortages some producers are already manufacturing slightly above their 1941 production rates." (This may have to be qualified in the light of present conditions in this industry.)

Other brief excerpts from Mr. Heer's talk are: "Whether the same farsighted and bold elimination of restrictive controls can confidently be anticipated at the appropriate time in the field of price control remains to be seen. President Truman had already stated the administration wants control beyond June 30.

"Production is, of course, the real safe guard against inflation; any other protective device is at best a temporary dam. There are those who see overly long extended price control as creating a vicious circle. by

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Corner of the General Mills display. This company is putting in a strong bid for a portion of the home appliance business.

Chicago housewares show

sets attendance record

ATTENDANCE at the Housewares Show, held at the Palmer House, Chicago, the first week in January, set a new record. The exposition room and several complete floors of the hotel were turned over to displays and exhibits of houseware items.

This show, sponsored by the Housewares Manufacturers Association, was attended by most of the prominent manufacturers and representatives of the leading retail establishments. Attendance was reported to have hit the 5,000 mark by Thursday, January 3.

Order books are scarce

Unquestionably orders for great quantities of merchandise were placed at the Chicago show, but manufacturers for the most part were setting arbitrary delivery dates of from two to four months. In many lines it seems probable that token shipments will be the rule for the first half of 1946.

Materials, labor and pricing are the problems

With the steel strike looming at the time the show was held, small appliance manufacturers were particularly cautious. It was claimed by some that limited steel stocks could not support production for more than a couple of months should expected supplies fail to be forthcoming.

Porcelain enamelware allocated

It was expected that porcelain enameled utensils will have to be allocated by manufacturers for some months in order to make available production "stretch." There is little new in these lines, and the tendency seems to be to get as much production as possible on a limited number of items from available materials and manpower.

Hundreds of personalized ash trays were porcelain enameled and distributed to visitors at the Enameled Utensil Manufacturers Council exhibit where the work of the association was explained and illustrated to visitors. Those in charge of the exhibit reported keen interest in the educational program of the E.U.M.C. among housewares buyers.

Few radical changes in major appliances

It was apparent from the show that appliances for the most part were the same as prewar models, externally at least, or were adaptations requiring little change in tools or dies.

Refrigerator manufacturers showed their inclination to recognize the possible demand for frozen food storage, either by making provision for it in conventional refrigerator models or in separate food lockers.

There is still a trend to the automatic washer in many lines, but, on the other hand, several manufacturers showed only the conventional type machines. Bendix had an elaborate display of their automatic washers and dryers, with all-porcelain model washers prominently displayed. Altorfer Bros. (ABC) had a big attendance at their demonstration of semi-automatic washing with a built-in "rinser," principal parts of which are made of porcelain enameled steel.

The trend to unit kitchens was emphasized in the displays of cabinet manufacturers. The two most elaborate displays were those of Youngstown Kitchens, Mullins Mfg. Corp., Warren, Ohio, and American Central Mfg. Corp., Connersville, Indiana. Shirley Corporation of Indianapolis, Ind., and others showed attractive cabinet displays.

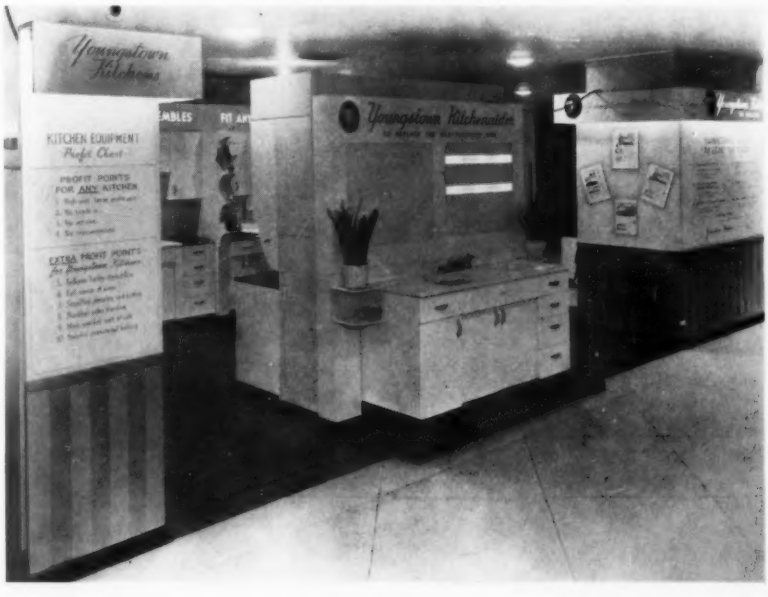
For the most part these installations included porcelain enameled sinks. It seems safe to say that the trend is definitely to the use of porcelain enameled sinks in the lines of the better manufacturers.

A little is better than nothing

In talking to housewares buyers, it would appear that although many of them came from great distances to attend the show they were prepared to expect little change in appearance of products, and for little change in immediate supply quota. The attendance should demonstrate to manufacturers that each buyer plans to make sure that no possibility is missed for getting merchandise into his store for resale.

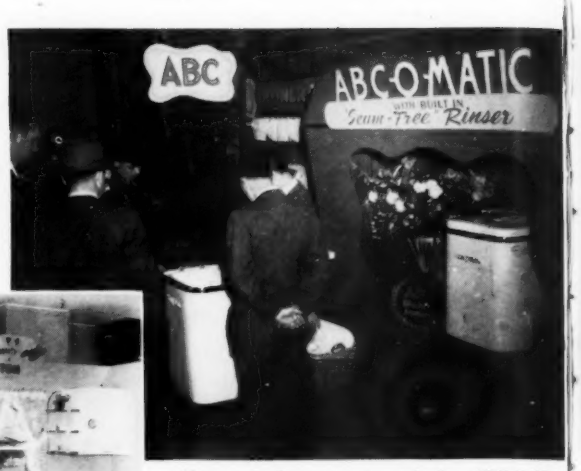
full page of photos . . . . Page 30 →

View of one section of the "Youngstown Kitchens" exhibit, one of the most elaborate at the Housewares Show.



THE HOUSEWARES SHOW

Above: Cribben & Sexton booth with Earl Smith, asst. to sales mgr. of Cribben; A. G. Fischer of the J. W. Robinson Co., Los Angeles, Cal.; and Frank Hoenigmann, Cribben's exec. vice pres.



Above: A demonstration of the ABC-O-Matic washers brought constant visitors to the Altorfer Bros. exhibit.

Below: Typical crowd of visitors in the exhibit of Youngstown Kitchens, Mullins Manufacturing Corp.

Above: Lyon Metal Products Co., Aurora, Illinois, had an attractive display of kitchen equipment, including porcelain enameled sinks.

Above: "Gene" Lindemann, pres. of A. J. Lindemann-Hoverson, Milwaukee, points to one of the company's deluxe model ranges.

Below: Pierre Vinet, asst. vice pres. Geo. D. Roper Corp., shows one of the company's latest model gas ranges to P. W. Coe of M. O'Neill Company, Akron, Ohio. Ranges feature a variety of cooking top arrangements.

Below: Small section of the elaborate Hurley Machine booth where Thor "Automagic" appliances were shown.

Above: Shirley steel kitchen cabinets and "porcelain steel" sinks. Mr. Messick talks with Mr. Bird of Denver.

all finishfotos
except
Lyon Metal Products

Suggested layout

for a continuous furnace enameling plant for reflectors

By M. M. Murphy • ENGINEER, ALBERT J. BOLAND COMPANY, ST. LOUIS, MO.

finish Lighting reflectors have represented an important outlet for porcelain enameled metal for a great many years. Until recent years the production was represented by reflectors for incandescent lighting. The swing to fluorescent lighting during the last few years brought a new problem to the porcelain enameling plants where reflectors are produced. While the finish is equally important to both types of reflectors, the processing and method of handling must be varied because of the variation in sizes, shapes, etc.

Incandescent reflectors still represent an important part of the production in most reflector plants, and there will probably be few plants, if any, which will not need to be designed for running both types.

The accompanying layout suggestion was planned for the production of approximately 50% of each type, although there is nothing in the layout which would make it impractical to vary the percentage of either.

The layout is designed to include all essential details for an up-to-date, conveyorized, high production plant.

AREA "A" — Enamel Preparation

The enamel preparation department includes a modern mill room equipped with seven mills, varying in size from 100 lb. to 2,000 lb. An overhead loading balcony provides space for the storage of raw materials and milled slip. One feature of the mill room section is a water preparation department which will be described later.

AREA "B" — Control Laboratory

The control laboratory will include all the essential equipment for mill room, pickle room and general plant control. It is located in a spot most convenient for this work.

AREA "C" — Metal Preparation

The tank arrangement is designed for 11 tanks. Two cleaners are followed by a hot and cold rinse respectively. Two acid tanks are provided, the first to be used for any beaded incandescent reflectors or shapes requiring annealing or scaling. The second tank is used for the standard run of parts. If no scaling is done, the second tank will serve to double the capacity of the standard pickling. This is followed by a cold rinse. The next tank is for nickel dip, to be followed by a cold rinse. The final two tanks are neutralizer tanks, the first to be used for either a cyanide neutralizer or soda ash neutralizer; the second a soda ash-borax neutralizer. Sufficient pickle baskets will be provided so that all cleaned and pickled parts remain in the baskets through the drier and to the point of ground coat application. Transportation is handled on trucks running on flat floor tracks.

AREA "D" — For Ground Coat Application

This layout shows provision for both dipping and spraying of fluorescent reflectors, but it can, of course, be altered to include only one or the other if the reflectors can all be run by a single method.

AREA "E" — For Cover Coat Application

Incandescent reflectors get first inside white coat and are loaded on drier conveyor, the exit end of which feeds spray booths for the outside single color coat. They are then beaded and returned to the drier chain for drying the outside of the reflector. (Operator beads the reflector as he puts it on the hanger to hang on chain.) After firing of first inside and outside coat simultaneously, the reflector is returned to the cover coat application section and the second inside white coat is applied. As the second inside cover coat leaves the drier it is transferred from the conveyor chain to tables for brushing, beading and stamping trade mark. There is an inspection point here so that any imperfect parts in first color coat can be placed on the conveyor preceding the color coat application section instead of at a point following. In either case, they will continue through the drier and be transferred to the furnace chain for final firing.

Fluorescent reflector

Following the ground coat firing, the fluorescent reflectors are removed from the furnace chain and placed on the drier chain where they pass through a large spray booth and receive the back coat of color enamel. They then pass through the drier, and then through a second large spray booth for the inside white, and again through the drier. All fluorescents are sprayed on the chain, and provision is made for those requiring brushing to be brushed on the chain at the exit end of the drier. (Location 15). Following brushing they are transferred directly to the furnace chain. After first cover coat fire, the reflectors are inspected and returned to the chain feeding the spray booths for second coat application, with a repetition of the steps outlined.

AREA "F" — Final Inspection

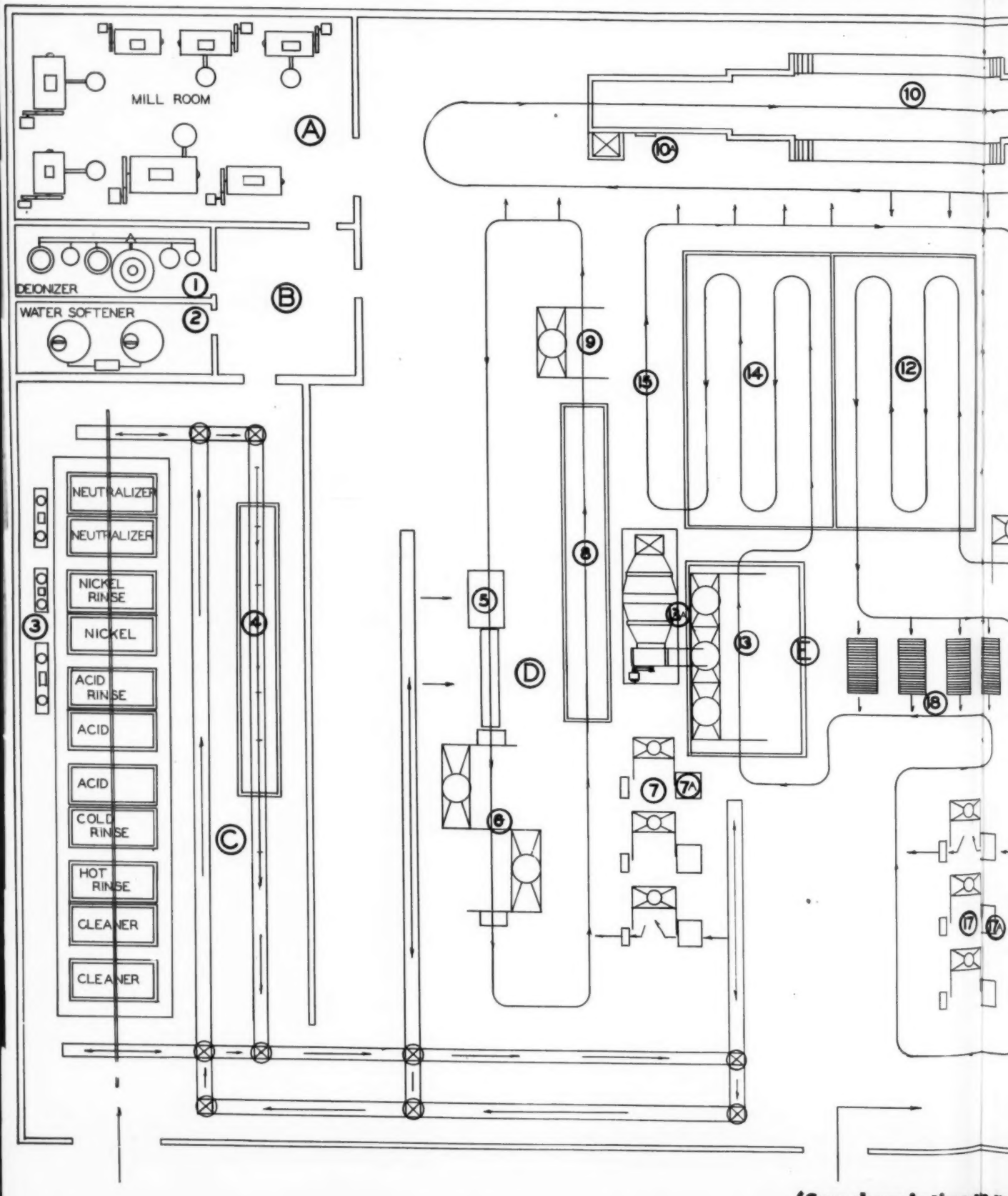
In addition to intermediate inspection points along the conveyor line,

to Page 34 →

See layout . . . Pages 32 & 33

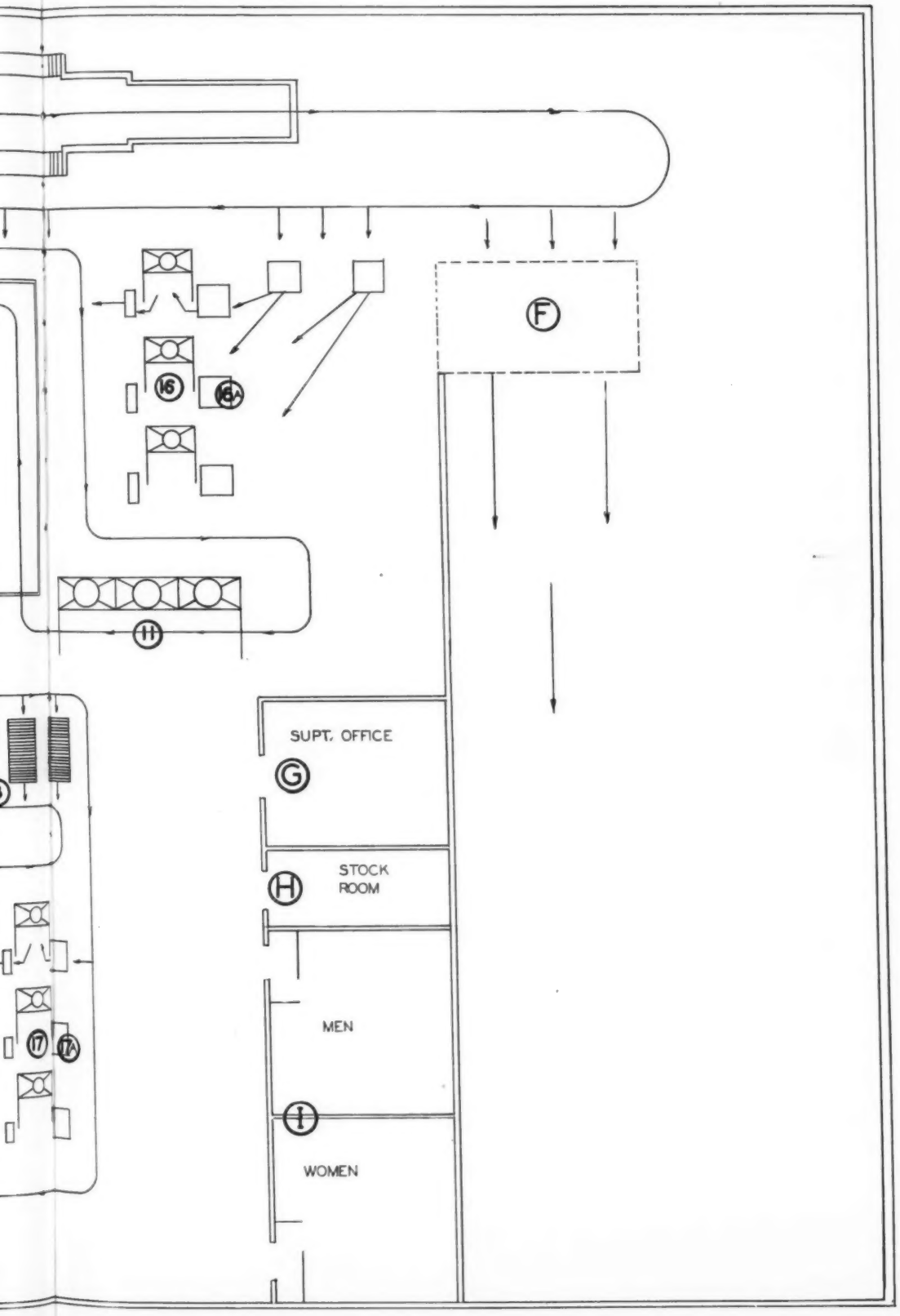
Plant layout No. 5 . . . . .

A single continuous furnace enamelingpl



(See description on p

ingplant for lighting reflectors



A. *Enamel preparation*

B. *Control laboratory*

C. *Metal preparation*

D. *Ground coat application*

E. *Cover coat application*

F. *Final inspection*

G. *Superintendent's office*

H. *Stock room*

I. *Rest rooms*

---

1. *De-ionizing equipment*

2. *Water softening equipment*

3. *Filter pumps*

4. *Pickle room drier*

5. *Ground coat dip tank*

6. *Spray booth for fluorescent*

7. *Ground coat spray booths for incandescent*

7-A. *Service tables for storage of metal shapes*

8. *Ground coat drier*

9. *Black edging for fluorescent*

10. *Continuous furnace*

10-A. *Orsat type CO_2 recorder*

11. *Color spray booth for fluorescent*

12. *Cover coat drier*

13. *White coat spray booth for fluorescent*

13-A. *Air input unit for air conditioned rooms*

14. *Drier*

15. *Brushing tables*

16. *Inside cover coat for incandescent*

16-A. *Portable storage tables (Same as 7-A)*

17. *Outside cover coat for incandescent*

17-A. *Portable storage tables (Same as 16-A)*

18. *Brushing and beading tables*

tion on pages 31 and 34)

→ *from Page 31*

this area is provided for final inspection of enameled parts.

AREA "G" — Superintendent's Office

AREA "H" — Stock Room

This stock room is for the storage of tools, parts and accessories incidental to the operation of the porcelain enameling plant. It provides for centralizing responsibility and keeps all tool inventories in central location.

AREA "I" — Rest Rooms

Adequate space has been provided for rest rooms for the employees.

UNIT 1 — De-Ionizing Equipment

This equipment is provided for the preparation of water used in the mill room.

UNIT 2 — Water Softening Equipment

This is provided for the preparation of water for pickle room use.

UNIT 3 — Filter Pumps

This installation represents filter pumps of portable variety for use in connection with nickel and neutralizer tanks.

UNIT 4 — Pickle Room Drier

This drier is designed for an exceptionally long drying time to assure complete drying of beaded sections where moisture may be entrapped.

UNIT 5 — Ground Coat Dip Tank

This dip tank for fluorescent reflectors is provided with a circulating pump and magnetic separator in a continuous circulating system.

UNIT 6 — Spray Booth for Fluorescent

Two staggered spray booths are provided for ground coating fluorescent reflectors, both front and back. These booths have large, dry collection chambers feeding to a common water wash tank.

UNIT 7 — Ground Coat Spray Booths for Incandescent

Three identical water wash spray booths are provided for incandescent shapes. 7a indicates service tables for the storage of metal shapes transferred direct from pickling baskets.

UNIT 8 — Ground Coat Drier

This is designed as a convection type drier for either gas or oil and serves both incandescent and fluorescent.

UNIT 9 — Black Edging for Fluorescent

A booth is provided for black edging of fluorescent reflectors if required.

UNIT 10 — Continuous Furnace

This is a straight through, continuous furnace located so that the conveyor chain will receive dried ware from both ground coat and cover coat conveyor lines, and deliver fired ware to points nearest application. The Orsat type CO_2 recording instrument (10-A) provides a constant check of flue gases.

UNIT 11 — Color Spray Booth for Fluorescent

This large water wash spray booth is for the application of all color coats to fluorescent reflector backs.

UNIT 12 — Cover Coat Drier

This cover coat drier is designed for convection heating and is of the same construction as No. 8.

UNIT 13 — White Coat Spray Booth for Fluorescent

This booth is identical with No. 11, and is provided for the spraying of inside white in a pressurized room.

UNIT 14 — Drier

This drier is identical to those previously described.

UNIT 15 — Brushing Tables (If Required)

Tables would be provided here for the brushing of fluorescents if required. This plan calls for the brushing of fluorescents on the chain.

UNIT 16 — Inside Cover Coat for Incandescent

Three identical water washed booths will be used to apply first and second inside white on incandescent reflectors.

Portable storage tables (16a) are the same as 7a.

UNIT 17 — Outside Cover Coat for Incandescent

Three spray booths (same as 16) are provided for application of outside color coat. Portable storage tables (17a) are the same as 7a and 16a.

UNIT 18 — Brushing and Beading Tables

These represent ordinary flat top tables for all brushing, beading and any identification stamping.

It is planned that this plant will operate in alternate shifts for incandescent and fluorescent reflectors. This is deemed necessary due to the wide difference in tools and fixtures required for handling the two types of ware. Equipment such as spray booths, etc., will be idle in alternate shifts but crews would be trained to alternate between the two jobs as required.

ONE OF A SERIES . . . . .

This layout suggestion is one of a series that has been presented in *finish*. Those shown previously included:

"Suggested Layout for a Single Continuous Furnace Stove Plant,"

By Ralph L. Foraker — December, 1944 *finish*.

"Suggested Layout for a Continuous Furnace Refrigerator Liner Plant,"

By A. B. Kimpel — March, 1945 *finish*.

"Suggested Layout for a Continuous Furnace Stove and Table Top Plant,"

By M. M. Murphy — April, 1945 *finish*.

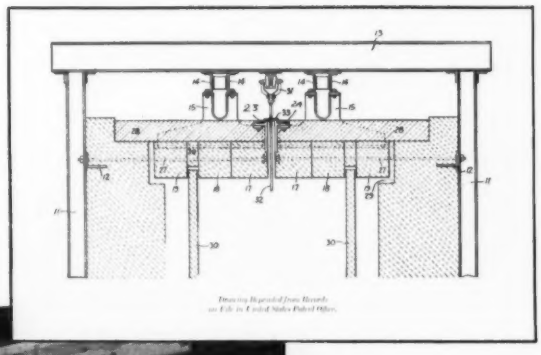
"A Modern Holloware Enameling Plant,"

By Dr. Paul A. Huppert — October, 1945 *finish*.

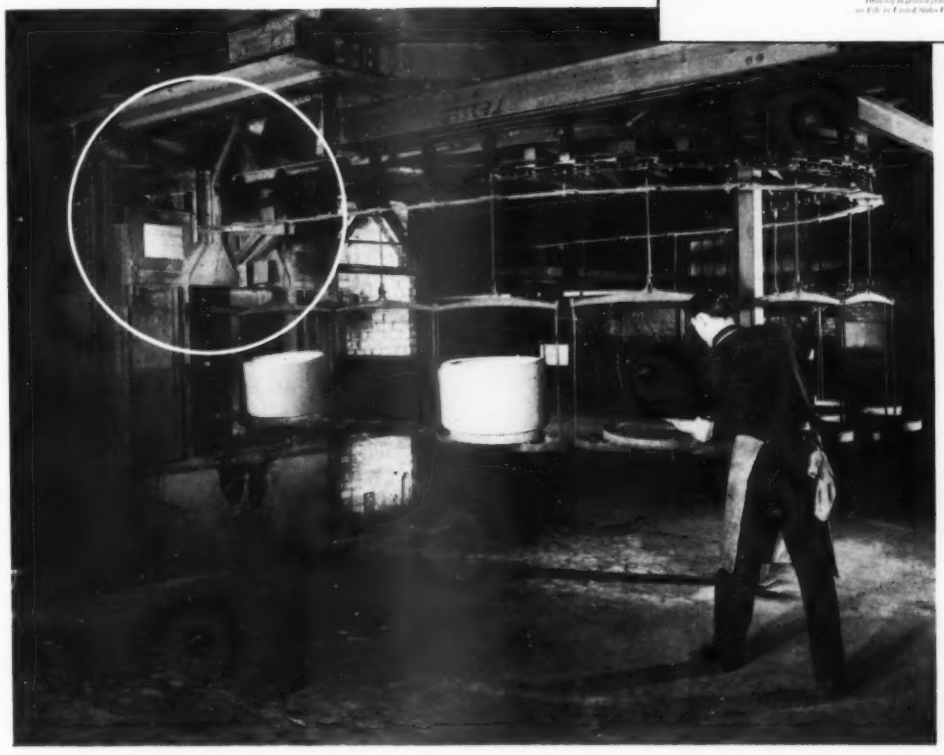
If you have a good idea pertaining to plant layout or equipment send it to Finish—It may help someone else.

ONLY BOLAND

"Single Flow" Furnaces have "Floating Roof" Construction



THIS REPRODUCTION OF A PATENT DRAWING SHOWS THE PRINCIPLE OF THE "FLOATING ROOF."



TYPICAL FURNACE INSTALLATION AT INGERSOLL STEEL DIV., BORG WARNER CORP.

LOOK to the roof when studying the design of your next continuous furnace. Only Boland furnaces have FLOATING ROOF construction. (Boland Patent No. 2,156,008.)

This roof, "built like Gibraltar," not only minimizes heat loss, but offers permanent insurance against conveyor distortion. The accompanying sketch shows the design characteristics of the roof which "carries its own weight."

This feature alone may be important enough to you to specify Boland furnaces, but in addition you get the added features of equalized temperature, heavier furnace loads and the elimination of time and labor consuming "furnace conveyor wrecks" in the Boland STRAIGHT AWAY —SINGLE FLOW continuous furnace.

WHY NOT TOSS ASIDE YOUR FURNACE WORRIES AND CALL IN A BOLAND ENGINEER?

ALBERT J. BOLAND COMPANY

407 NORTH EIGHTH BUILDING • ST. LOUIS 1, MO.

DESIGNERS AND BUILDERS OF CONTINUOUS AND BOX TYPE ENAMELING FURNACES

Laundry equipment m

hold ann

Something wrong here! C. M. Yelton, Packard Electric Motors, is "selling" Horace Bumby, president, Barlow & Selig, while Herb Forsberg, Geuder, Paeschke & Frey, enjoys the burlesque.

finishfotos

Homer Reeve, general sales manager of Easy confabs with Easy's pipe-smoking John B. Dwyer, chief engineer.

It must have been a good one if we can judge by expressions on the faces of "Dick" White and Terry Craig of Mullins.

Lower left: Washers and soap could be the topic here between R. H. Roden, general sales manager, Appliance Division, F. L. Jacobs Co., Detroit, and Lever Brothers' H. Andres.

Right: Gage Campbell represents the Association's only Canadian member, Beatty Bros. Ltd. of Fergus, Ontario.

KEEN interest in industry plans was indicated by a large attendance and enthusiastic participation in the annual meeting of the American Washer and Ironer Manufacturers' Association held January 9 at the Edgewater Beach Hotel in Chicago.

Work through 1945 by almost a dozen committees, named when Louis C. Upton, head of the Nineteen Hundred Corporation, St. Joseph, Mich., became Association president a year ago, culminated in a series of reports on activities designed to advance the common interests of the producers, the trade and the consumer.

To publish laundering manual for educational institutions

Immediate steps will be taken to publish a Laundering Manual for free distribution to high schools, colleges and all other institutions conducting classes in home economics, W. Neal Gallagher, president and general manager, Automatic Washer Co., Newton, Iowa, chairman of the Advertising and Market Research Committee, announced. The Manual has been prepared by William Shaw, who serves the Association in the public relations and publicity fields, in consultation with educational institution home economics authorities throughout the country. Mr. Gallagher also announced that the Committee's recommendation for expansion of the Association's promotion program had

nt manufacturers

old annual meeting

been approved by the Executive Committee.

In his presentation Mr. Gallagher referred to the slogan — "For family washing there's no place like home." He referred to a number of highly successful national advertising programs by various trade associations and summed it up with the question, "Who are we that we can ignore the chance to build our industry through similar methods?"

Manufacturers will be enabled to study the performance of their washers by comparison with the results obtained in using a comparator washer, a special model which will serve as the base-line for all tests. The entire standard washing machine efficiency test procedure was perfected by a committee of industry experts headed by P. E. Geldhof, chief engineer of the Nineteen Hundred Corporation.

Speaking before the group, Mr. Geldhof referred to important cooperative work with the Underwriters' Laboratories and leading household publications sponsoring laundry equipment testing programs.

Group insurance and hospitalization, retirement and plant safety programs as practiced by the various manufacturers will be studied and the methods reported generally throughout the Association for the common information and benefit of the members, E. C. Buchanan, vice president, Apex Rotarex Corporation, Cleve-

The Andersons from Des Moines (New Monarch Machine & Stpg.) are always on hand at the washer-ironer meeting. Here are Clarence and Arvid. Frank was present too.

finishfotos

Making themselves comfortable for the meeting are Easy's treasurer, W. H. Schrader, and chairman of the Board, J. C. Nelson.

Ferro Enamel Corporation Liquid Plastics Division was represented by W. E. Donley and L. H. Miller.

Lower right: This smiling group is from Hamilton Mfg. Co., Two Rivers, Wis. They are Vice President Howell G. Evans, President E. P. Hamilton, and W. A. Friedrich, sales director of the Home Appliance Div.

Lower left: Joseph Groshans, general sales manager, American Ironing Machine Co., gets a word in with OPA's Tom Kelly.

land, chairman of the Industrial Relations Committee, reported.

Mr. Buchanan covered the committees "fact finding" program regarding "conditions of work."

Coordinated selling of laundry equipment urged

Plans for related demonstration and selling of ironers and dryers, and for the promotion of the fully-equipped home laundry, were announced by I. N. Merritt, vice president and general manager, Conlon Corp., Chicago, reporting for A. E. Askerberg, president, Horton Mfg. Co., Fort Wayne, Ind., chairman of the Ironer and Dryer Committee.

Said Mr. Merritt, "War has brought out the need through lack of servants and the (commercial) laundry situation. The market for ironers and dryers is definitely here.

"Sales value to dealers and distributors and satisfaction to customers in a complete line can not be overlooked."

Mr. Merritt referred to a recent survey which showed 23.6% of the homes want dryers.

Methods for closer integration between the industry's suppliers and its manufacturers were discussed by Carl Huff, Bliss & Laughlin, Inc., Harvey, Ill., chairman of the Associates Committee. John M. Wicht, vice president, Blackstone Corp., Jamestown, N.Y., in a special report on realty mortgage financing of laundering equipment installations, declared that on the basis of a Crossley survey for "Architectural Forum" the equipment potential for planned home laundry rooms totals 660 million dollars. Thirty-eight states have approved the inclusion of equipment in the mortgage in some form or other, and one large life insurance company will finance all types of washers, ironers and dryers without FHA insurance, he declared.

Mr. Wicht also pointed to the fact that while 9.2% of wired homes had washers in 1920, the figure was 63.1% in 1941. The importance of mortgage financing was stressed by the statement that in all probability 80% of the new homes built will be financed.

Other reports were made by W. H. Reeve, vice president in charge of sales, Easy Washing Machine Co., Syracuse, N.Y., chairman, International Markets and Trends Committee; R. H. Thompson, traffic manager, Maytag Company, Newton, Iowa, for J. J. McConville, Westinghouse Electric Corp., Pittsburgh, chairman of the Traffic Committee; and by Bernard J. Hank, president, Conlon Corp., Chicago, as chairman of the OPA and finance committees, and treasurer of the Association.

OPA factory price increase to be appealed

An appeal will be made to the administrator of the OPA on the representation that the factory price increase allowed the home laundering equipment industry is so small that it is penalizing the full manufacturing of washers and ironers, "so badly needed by millions of American homes."

Mr. Hank urged that in the consideration of present pricing problems not only should the years of '46 and '47 be included, but also '48, '49 and '50. He feels that if manufacturers can not make money in the "lush" period just ahead, there will be extreme difficulty in the period to follow which could readily lead to failures and a bad industry situation generally. In his opinion "the amount of deferred postwar demand should be discounted, due to the increase in the number of manufacturers and increased industry capacity."

Upton reelected president of the association

Mr. Upton was reelected president of the Association for the ensuing year.

Others elected: vice presidents, Walter K. Voss, Voss Bros. Mfg. Co., Davenport, Iowa; H. A. Bumby, Barlow & Seelig Mfg. Co., Ripon, Wis.; and Richard J. Simmons, Birtman Electric Co., Chicago; and treasurer, B. J. Hank. The executive committee members are: Oscar A. Lenna, Blackstone Corp., Jamestown, N.Y.; J. C. Nelson, Easy Washing Machine Corp., Syracuse, N.Y.; H. A. Sperlich, Ironrite Ironer Co., Detroit; Roy A. Bradt, Maytag Company, Newton, Iowa; George Castner, Beam Mfg. Co., Webster City, Iowa; Judson S. Sayre, Bendix Home Appliances, Inc., South Bend, Ind.; and Mr. Upton.

The Advisory Committee includes: C. G. Frantz, Apex Rotarex Corp., Cleveland; W. Neal Gallagher, Automatic Washer Co., Newton, Iowa; and John M. Wicht, Blackstone Corp., Jamestown, N.Y.

Louis C. Upton, re-elected president of the Association, enthuses over the industry's new products as he visits with Maxine Livingston, left, Parents' Magazine; Elizabeth Sweeney, McCall's; Mrs. Ida Migliario, Household; and Ada Bessie Swann, Woman's Home Companion, during the industry's annual meeting.

The Washington round-up

By Wilfrid Redmond

THE supply position of the majority of chemicals has improved but work stoppages in other industries will have a pronounced although delayed effect upon the porcelain enamel chemicals.

The effects of the labor disputes upon the chemical industry cannot be determined at this time, but, with a rise in industrial activity, the markets for industrial chemicals will increase.

Alkalies continue to be in tight supply. Heavy withdrawals in several industries, together with the setback in production occasioned by labor disputes, has been in considerable measure responsible for this situation in soda ash. Trade sources indicate that bulk soda ash is in more plentiful supply than other forms of alkalies.

The supply of sulfuric acid continues adequate with no serious shortages reported. Hydrochloric acid requirements continue regular with production sufficient to take care of the demand.

Titanium demand is double the available supply

Requirements for titanium are currently more than double the supply. CPA is handling requests for CC ratings under PR-28 from consumers of titanium materials but very few are being granted.

Supply and demand of leaded zinc oxide are reported to be in reasonable balance with the supply of lead free zinc oxide continuing easy.

Bathtubs (H.H. ratings)

Bathtubs are included in a list of seven materials which will be assigned priority ratings under the low cost housing program. About 500,000 bathtubs will be earmarked for homes costing under $10,000 into the construction of which 50 per cent of the available building materials will be channeled. It is estimated that 450,000 homes will be constructed under this program.

An "HH" rating will be assigned to the builder for bathtubs in priority housing and the rating will go all the way back to the manufacturer. However, the Plumbing and Heating Manufacturers Industry Advisory Committee recently announced their opposition to the extension of HH ratings and recommended to CPA that the ratings should be applied to orders on distributors only. Priorities Regulation 33, which includes the HH rating, became effective Jan. 15.

The manufacturers' committee further recommended that a ceiling be placed on the amount of rated orders on bathtubs which distributors must fill. This would mean that after a distributor had filled HH rated orders up to a given percentage of his receipts of these items, he would not be required to fill additional rated orders. The exact percentages to be used were not specified by the committee members.

The committee also recommended that distributors not be required to set aside for HH orders any specific proportion of the shipments received by them for any stated time limit. They believed that the establishment of a ceiling upon the deliveries from the distributors would better satisfy the aim of the program than the establishment of both ceilings and set asides.

John D. Small, CPA administrator, said that quotas will not be set up unless such action becomes necessary as a result of applications in excess of the availability of materials. Another condition would be an indication from the applications of a general intention of builders to construct housing at the maximum ceiling price rather than at a range of prices within the ceiling. Also, a disproportionate number of applications from some sections of the country. Although Mr. Small and his advisors are hopeful that most of the materials will not be diverted to the construction of homes just under the cut-off price of $10,000, some observers believe that CPA may have to break down the HH rating into an "A plus" series, such as was used during the war, in order to insure the channeling of sufficient materials into homes in the $5,000 to $7,000 class.

The critically short materials which have been assigned the HH rating under PR 33 may be changed from time to time with deletions or additions to the list.

Cast iron fixture manufacturers get eight percent price increase

Manufacturers of enameled cast iron plumbing fixture ware have been granted an increase in their prices of 8 per cent over the October 1, 1941 price level. The increase was given to permit the industry to realize its peacetime earning rate after effect has been given to increases in material prices and basic labor rates which the industry has experienced since 1941. The raise in ceiling prices follows an increase granted to the gray iron castings industry to prevent a bottleneck in the reconversion. Resellers are not permitted to pass on the increase to the consumer. The 8 per cent increase to manufacturers was arrived at by a sample survey which shows that industry labor rates have increased 16.04 per cent and materials prices 19.55 per cent since 1941. By adding to this adjusted cost the industry average earning rate for the years 1936-1939, inclusive, of 11.82 per cent, the industry qualifies for an 8 per cent increase above the Oct. 1, 1941 price level.

Most manufacturers will use their March 1942 prices because, with only minor exceptions, the manufacturers' prices for enameled ware increased by more than 8 per cent between October 1, 1941 and March, 1942.

Small electrical appliances

Manufacturers of small electrical appliances are permitted to increase prices 8 per cent over their October 1-15, 1941 level in an action recently announced by OPA. Ceiling prices for distributors and retailers are also established. Small electrical appliances, as defined under the order,

to Page 52 →

"Like U·S·S Vitrenamel there's an EXTRA PUSH behind it"

We don't have to talk about the *quality* of U·S·S Vitrenamel. For you know that there isn't a better base metal available. You know, for instance, that Vitrenamel Sheets are made especially for fine porcelain enameling; that they withstand severe drawing operations, are easily welded by any standard method, and that their uniform surface texture provides the maximum degree of adhesion—gives a fine finish.

BUT there is one thing we do want to stress: the advertising and promotion effort we have so consistently placed on so large a scale behind the U·S·S Label. Yes, for a great many years now, advertisements in the most widely read magazines in the country have been making consumers familiar with this label. Millions now recognize it as a *national symbol of quality*. We are thus helping you to sell your products to the public.

We want to emphasize, too, the special service that is available, without cost or obligation, in helping you solve any specific problem of marketing or promotion with which you may be confronted.

These advantages are the *EXTRA PUSH* behind U·S·S Vitrenamel Sheets. Naturally, they make it easier for you to do business; to increase your profits.

If you desire to identify your quality enamelware products with the U·S·S Label, full information will be sent you upon request.

U·S·S VITRENAMEL SHEETS

CARNEGIE-ILLINOIS STEEL CORPORATION
Pittsburgh and Chicago

Columbia Steel Company, San Francisco, *Pacific Coast Distributors*
United States Steel Export Company, New York

UNITED STATES STEEL Presents the Theatre Guild On The Air Every SUNDAY EVENING AMERICAN Network (Blue)

UNITED STATES STEEL

First annual dinner of the "Old Timer's Club"

SUGGESTIONS have been made for a number of years that the "old timers" in the porcelain enameling industry, those operating enameling plants or in closely allied activity, band together into a club that would be strictly social in nature.

These suggestions resulted in the first annual dinner of the "Old Timers Club," held in conjunction with the annual meeting of the P.E.I. in Pittsburgh, October 24, 1945. There were twenty-seven old timers present and, believe it or not, each one made a speech—twenty-seven separate speeches — all good, or reasonably good — because they were all short.

Eligibility for future membership in the Club was established as twenty years' service in the porcelain enameling industry. Prime mover for the new organization was H. R. (Spike) Spencer of Erie Enameling Company.

"Old Timers" Roster

Bennett Chapple	J. C. Eckels
Wm. Hogenson	H. L. Cook
R. A. Weaver	Dana Chase
R. H. Turk	R. H. Coin
Emmet Dwyer	George Hays
C. D. Clawson	George Blome
Joseph Foster	E. G. Walbridge
F. A. Tobitt	P. B. McBride
W. H. Brett	J. E. Hansen
R. G. Calton	H. M. Brenner
B. T. Sweely	H. E. Shabacker
E. L. Seasholtz	William Wenning
H. R. Spencer	Edward Mackasek
E. M. Hommel	

Other Old Timers who were not in attendance at the first dinner:

F. G. Sutphen	Edgar Weil
Ernest Richardson	F. E. Hodek, Jr.
R. R. Danielson	L. A. Adams
L. B. Hart	R. L. Foraker
Karl Turk, Sr.	E. C. Dexheimer

The names of Spencer, Chapple and other prominent Old Timers were presented for "chief copperhead", "grand potentate" or an equally descriptive name for chairman. After each refused in turn, it was unanimously voted that each and every member should become a "vice president."

This evening spent by the Old Timers — or, as one vice president expressed it, "has been" enamelers — will long be remembered by those present. There was much reminiscing

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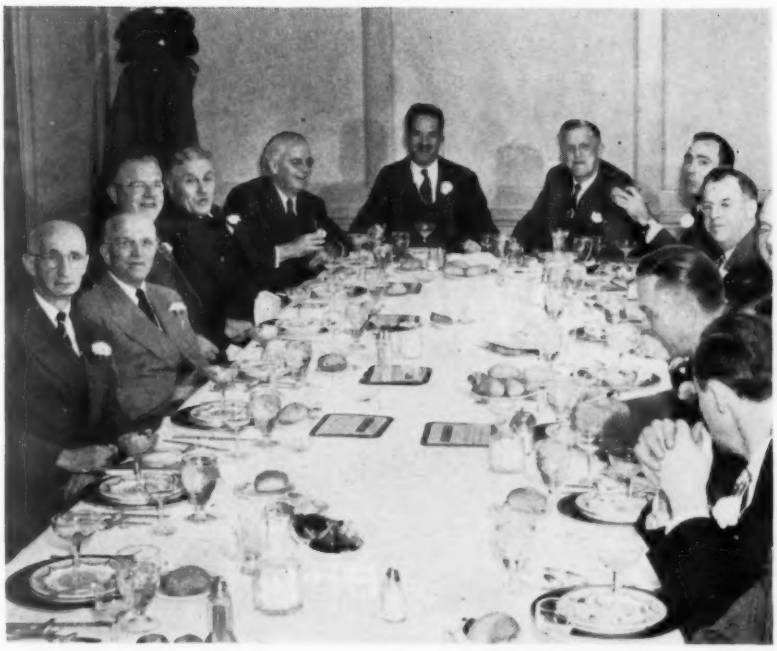


Top photo, clockwise: Eckels, Carnegie-Illinois Steel; Tobitt, American Rolling Mill; Clawson, Ferro Enamel; Hogenson, Chicago Vitreous; Weaver, Ferro Enamel; Spencer, Erie Enameling; Chapple, American Rolling Mill; Dick Turk, Pemco Corporation; and Calton of Tennessee Enamel.

finishfotos

Lower photo, clockwise: Dwyer of Wolverine, Brett of Alliance Ware; Coin, Ingram-Richardson of Indiana; Hays of Vitreous Steel Products; Wenning, Ceramic Color & Chemical; Seasholtz of J. M. Seasholtz & Sons; Hansen, Ferro Enamel; Hommel of O. Hommel Co.; Sweely, Chicago Vitreous; Blome, Porcelain Steel Corp.; Brenner of Drakenfeld; Walbridge, Porcelain Metal Products of Pittsburgh; Shabacker, Erie Enameling; Cook, O. Hommel Co.; and McBride of Porcelain Metals Corp.

NEWS

New Trenton Section ACS

The Trustees of the American Ceramic Society have approved the organization of a Section in New Jersey to be known as the Trenton Section of the American Ceramic Society.

The Section organization will take place at a dinner meeting in the Terrace Room of the Stacy-Trent Hotel, Trenton, New Jersey on Friday, February 1, 1946 at 6:30 P.M. C. Forrest Tefft, president of the American Ceramic Society, will present the charter. The principal speaker will be J. W. Whittemore, Associate Dean of Engineering, Virginia Polytechnic Institute, Blacksburg, Virginia, who has recently returned from a tour of Ceramic Industries in Europe.

An initial report states that all persons interested in ceramics are invited to join the Section. An original announcement will be mailed to all members of the Ceramic Society in the vicinity. Any one else desiring to be placed on the mailing list should write to the Trenton Section A.C.S., 1403 Trenton Trust Bldg., Trenton, New Jersey.

Bartlett joins Chem-Pro company

According to an announcement by Roy W. Armour, general manager of Chemical Process & Engineering Company, Los Angeles, California, B. C. Bartlett has been appointed to the company's Enamel Plant Engineering Division. Mr. Bartlett will serve as consultant and service engineer on all matters pertaining to enamel plant production and processes, according to the announcement.

"Bart" was formerly process control man for Roper in the pre-war period and was associated with O'Keefe & Merritt on enamel production.

Federal Electric Company president dies

Charles Borland, president of Federal Electric Company, Chicago, died Thursday, January 3, 1946, at Charleston, South Carolina, following an operation.

Mr. Borland was born in Toronto, Canada, November 2, 1877 and shortly thereafter his family moved to the United States. He received his early schooling in Boston and was later graduated from Harvard Law School. For a time he practiced law in Boston, and then entered the industrial field as manager of the Electric Light and Power Company at Milford, Connecticut. This lead to connections with the paper industry, followed by military service during the first world war.

Upon release from the army, Mr. Borland became vice president and general manager of the Robert Gair Company of New York, manufacturers of paper boxes and cartons. Then, in 1926, he became associated with the Federal Electric Company as general manager and later he also held the post of president of the Mohawk Tire and Rubber Company, Akron, Ohio. He was elected a director of Federal Electric Company in 1927, and in 1934 was elected president.

Mr. Borland is credited with being one of the pioneers in the development of neon tubes and their application to the company's products. He lived to see his company take an active part in the development and manufacture of electrical and mechanical equipment of extensive value to the war effort during World War II, work which culminated in the receipt by the company of the Army-Navy "E" award.

It is reported that Homer Gray will have charge of the porcelain enameling plant at Brown Stove Works, Cleveland, Tennessee. Mr. Gray was formerly with Chattanooga Stamping and Enameling Company.

Consolidated Vultee personnel

Included in the plant executive personnel of the Consolidated Vultee Aircraft Corporation, Nashville Division, are the following: D. W. Balfour, works manager; V. B. Grizzard, purchasing agent; D. D. Burnside, superintendent; and R. Casey, chief of materials.

Further announcements will be made later regarding personnel and production plans of interest to the porcelain enameling industry.

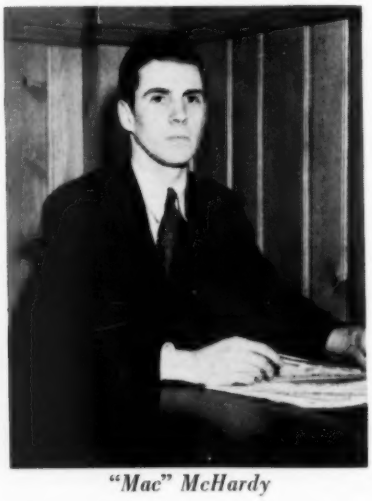
Back on the job at Vitreous Steel Products

Melville (Mel) Combs, who until his recent return from active service was Major Combs and has since received promotion to Lt. Col., is now actively engaged in his former position as superintendent of enamel-

ing at Vitreous Steel Products Company, Nappanee, Indiana.

"Mel" entered the service as a 1st. Lt. on March 15, 1941, and prior to his discharge spent 18 months in the South Pacific as an officer in a Tank Battalion. He said he is "happy to be home again and in the so called harness once more."

Hussmann-Ligonier announces enamel plant personnel



"Mac" McHardy

Warren C. Flynn, personnel director for Hussmann-Ligonier Company, St. Louis, reports personnel assignments in the company's enameling plant.

M. E. McHardy, formerly of Seeger-Sunbeam Corporation, joins the organization on February 15 as enamel department superintendent.

"Mac" was with Chicago Vitreous from 1927 to 1939 prior to joining Seeger, where he was made porcelain shop superintendent in 1940.

J. B. Vernetti, until recently a Major in the U. S. Army, takes over the duties of technical advisor on enameling.

Welcome back, DK&K!

Members of the porcelain enameling industry will remember the firm of Davee, Koehnlein and Keating for its research on sign advertising, published in a series of articles in *finish* during 1944 and '45; for research on How to Sell 5-Piece Breakfast Sets which ran as a feature article in "Retailing Home Furnishings"; and cooperative research on Causes and Cures of Damage to Porcelain Enameled Ranges from Factory to Customer.

In 1942, after five years of market potential, selling methods and consumer acceptance studies for a variety of clients, including several in the porcelain enameling industry, DK&K closed their business at 612 N. Michigan Avenue, Chicago and entered the service.

Ken M. Davee served with the Navy, first on training and administrative work with the Eastern Sea Frontier; later, when the qualification tabulating card system reached high gear, with the Executive Office of the Secretary of the Navy as a Management Analyst.

Wilson Koehnlein fought the war the hard way, first with the Tank Destroyers and later with the Infantry, landing in Southern France and fighting up to and into Germany with the first division of the Seventh Army to win its way onto the "*sacred soil*" of the Reich.

Paul Keating made use of the technical knowledge he had acquired while handling the firm's long-time client, the General Electric Lamp Division, and enlisted in the Signal Corps, whereupon he was schooled in electronic devices and radar and eventually attached to the Air Corps' largest Base Air Depot in England.

These three economists and market researchers have just been released by the Navy, Army and Army Air Corps, respectively, all within a miraculous four days after something over three years of military service. They are already under way at 11 South La Salle Street, Chicago, with market and product analyses for several former clients and some new ones, including a manufacturer of light airplanes. There is a thoroughly non-military atmosphere at the new address where the three civilians are happy to see their old friends.

"Thor" to build plant near Los Angeles

A report credited to Edward N. Hurley, board chairman of Electric Household Utilities Corp., stated that the Hurley Machine Division is to start construction soon of a new Los Angeles plant to represent a minimum investment of $1,000,000. Site of the new plant is given as a ten-acre tract in El Monte, a suburb of Los Angeles. Both Thor washers and ironers are to be produced in the new plant.

It is expected that products built on the West Coast will offer an appreciable saving to the consumer because of the elimination of freight charges.

Mention was also made of the possibility that the company will build manufacturing facilities on the East Coast.

McIlhenny joins Ferro

E. L. McIlhenny has joined the research and field service staff of Ferro Enamel Corporation, Cleveland.

Having been for the past eight years with Detrex Corporation, Detroit, Mr. McIlhenny is well known for his work in the detergent and metal cleaning field. A graduate of Washburn College, he took two years postgraduate work in chemistry at the University of Minnesota before entering business. He is a member of the American Ceramic Society and the American Electroplaters Society.

United States Steel Supply Company, subsidiary of United States Steel Corporation, soon will begin construction of new steel warehousing buildings in Cleveland. The company has just acquired a nine-acre industrial

tract on Bessemer Avenue in southeast Cleveland for its new structures which will be more than double existing facilities that are to be abandoned upon completion of the postwar development.

Visitor from Australia

finishfoto

A recent visitor to the *finish* offices is from Adelaide, South Australia. John Simpson, of the firm of A. Simpson & Son, Ltd., is currently in the States for training in some of the leading plants and laboratories where he hopes to gain both practical and technical experience of value to his company.

Gas Appliance Manufacturers Association is new name of manufacturers group

Change in the name of the Association of Gas Appliance and Equipment Manufacturers to Gas Appliance Manfacturers Association was announced by Mr. H. Leigh Whitelaw, managing director. Functions of the Association will in no way be altered. The change of name is for the purpose of simplification only.

Membership in the Association totals 296 manufacturers of gas appliances and equipment who are said to represent approximately 80 per cent of the total volume of such equipment manufactured in the United States and Canada.

Purpose of the Association is to promote the use and sale of appliances and equipment used in the production, distribution and utilization of gas as a fuel.

G.A.M.A. appointment to Harold Massey

Harold Massey has been appointed assistant managing director of the Gas Appliance Manufacturers Association, Mr. H. Leigh Whitelaw, managing director, announced recently.

Mr. Massey was formerly associated with the American Radiator and Standard Sanitary Corporation in the sales, advertising, engineering, and design of automatic gas water heaters, boilers, furnaces, conditioners, and conversion house-heating burners.

From 1923 to 1930 Mr. Massey was chief engineer of the Standard Gas Equipment Corporation, where he was active in the development and production of domestic, commercial, and industrial cooking equipment and industrial gas burners. He is widely known throughout the gas industry and has served on many committees of both the American Gas Association and the Gas Appliance Manufacturers Association. He has also served on Government Industry Advisory Committees.

Philco announces new name

The Board of Directors of Philco Corporation has changed the name of Philco Radio & Television Corporation, a wholly-owned subsidiary which handles the national distribution of Philco products in the United States, to Philco Products Incorporated, it was announced by John Ballantyne, president.

"The greatly expanded scope of Philco operations, which now include household refrigerators, freezers, air conditioners, and radar equipment, as well as radio receivers and television, makes it advisable to give a broader name to our sales company," Mr. Ballantyne said in explaining the action of the Board of Directors.

O. Hommel service pins awarded

Service pins were awarded to O. Hommel Company employees last month in recognition of their years of service. The award of the service pin was started by Mr. O. Hommel, the late president and founder of the company, as recognition to employees for continued service to the company.

Pins are awarded to employees for each five years of service. Ernest Hommel, president, awarded service pins to the following: 30 Years: Al Lyons; 25 years: W. E. Dougherty; 20 Years: Mrs. S. Sirko and C. J. Wolkan; 15 Years: Miss Sarah Foss, J. B. O'Connor and F. Ovesney; 10 Years: E. E. Everly, Jr., L. Baggus, P. D. Henry, J. H. Sylvester, I. F. Thompson, and W. T. Campbell; 5 Years: Miss Nonie Cunningham, W. F. King, F. W. Cheesebrough, H. L. Cook, R. E. Kirby, W. R. Bookser, and J. W. Ewing.

Noma Electric Corporation buys Estate Stove Company

David F. Kahn signed for Estate

Noma Electric Corporation, large producer of Christmas tree lights and novelty lighting effects, toys, etc., has purchased the Estate Stove Company, Hamilton, Ohio, one of the country's best known manufacturers of gas and electric cooking ranges and coal and oil heaters, it was announced recently by David F. Kahn, Estate president.

Noma is reported to have paid two million dollars cash and 35,000 shares of Noma common stock in exchange for all Estate common and preferred shares. The report further indicates that David, Bertrand, Albert and Lucian Kahn will obtain the majority of the Noma stock involved in the

transaction and will retain a proprietary interest in the company.

Henri Sadacca, president of Noma, announced that David F. Kahn, president of Estate since 1924, will continue in that office. No changes are planned either in the management or in the policies of the company, according to the announcement.

Plant expansion is already started. Estate expects to produce the Noma air convection electric heater in addition to the Heatrola line of cooking and heating appliances.

Chicago Enamelers Club and Chicago Section A.C.S. to hold joint meeting

A joint luncheon meeting of the Chicago District Enamelers Club and the Chicago Section of the A.C.S. will be held on Saturday, February 23, in the Ball Room on the 19th floor of the La Salle Hotel, Chicago. Charles S. Pearce, associate secretary of the American Ceramic Society, is to speak before the combined group.

Following the luncheon meeting the two groups will separate for their business meeting programs.

Vitreous Enamels on Aluminum will be the subject covered in the Enamelers Club session. Mr. B. C. Bricker of E. I. du Pont de Nemours & Co., Inc., Electrochemicals Dept., will speak on this subject.

The ACS Section Program covers topics said to be of vital interest to all members of the group. Professor Almy of the Physics Department of the University of Illinois will speak on the principles and application of the Betatron. Following Professor Almy's talk, Professor Hursh of the Department of Ceramic Engineering will present several of the specific details involved in the development of the special whiteware body which forms the integral core of the Betatron. In addition, Mr. W. S. Debenham, research engineer of the Carnegie-Illinois Steel Corporation, will present a paper on recent research and development in refractories.

Conlon buys controlling interest in Moore Corporation

The Conlon Corporation, Chicago, maker of electric household appliances, has purchased control of the Moore Corporation, Joliet, Illinois, Bernard J. Hank, president and chairman of the Board of Conlon, announced.

The Moore Corporation is one of the oldest heater, furnace and combination range manufacturers in the United States, having been founded eighty-eight years ago. It manufactures both gas and coal ranges; circulating and radiating heaters for gas, coal and oil; furnaces; and combination coal and gas, coal and wood, and oil and gas ranges. Its factory occupies a quarter-million square feet of floor space on nine acres in the heart of a Joliet industrial section and includes a gray iron foundry and a porcelain enameling plant.

Mr. Hank will become chairman of the board of the newly acquired concern. E. K. Priest, Joliet, who has headed the company for six years, continues as its president. Louis R. Peyla, president, Illinois Securities Company, Joliet, continues as Moore vice president and director.

"Purchase of the Joliet company is one of the major steps in the comprehensive expansion program announced last year for Conlon," Mr. Hank said. "Manufacturing will be increased and the lines of appliances and other products broadened as rapidly as engineering work permits and plant facilities at Joliet can be expanded. The 1946 Moore production program will be double any former output there. Present lines will be retained and others will be added.

"The Conlon plant has been replanned and is being equipped for quadruple its former capacity. As facilities and modernizing of the Moore plant enable us, some new Conlon lines will be produced there."

Conlon directors who will serve on the Moore board are E. J. Morrissey, officer and director of the Chicago Rivet Machine Company; L. J. Schneider, officer and director of the Schneider Metal Manufacturing Co., Chicago; E. J. Seifert, president, Pettibone Mulliken Corp., Chicago, and Mr. Hank. Moore directors remaining on the newly constituted board are Mr. Peyla, John McCowan, plant foreman, and C. F. Spicer, vice president in charge of sales.

Consideration involved in the purchase was not announced.

More horsepower coming

To meet the tremendous demand, the 200,000 horsepower of driving force being turned out every month in the Motor Division of the Westinghouse Electric Corporation at East Pittsburgh is expected to soar to per-

The speakers table at the December meeting of the Central Ohio Section, American Ceramic Society, Columbus. Left to right: A. R. Blackburn, Engineering Experiment Station, Ohio State University, secretary; Philip W. Tefft, Claycraft Company, chairman; Max Saurer, author of "The Editor Squeaks," speaker; W. E. Cramer, Industrial Ceramic Products, Inc., councillor; C. Forrest Tefft, Claycraft Co., president the American Ceramic Society; John A. Carruthers, professor, Ceramic Engineering, Ohio State University.

haps 300,000 horsepower when operations reach full swing in the new plant at Buffalo, N.Y.

About 6,000 persons will be employed there compared to the 4,000 now in motor production in the parent plant. Motor production will run more than 80 per cent higher than in the peacetime years of 1937-1939, and about 50 per cent above the peak year of 1940, according to latest estimates by company officials.

New P.A. at Bendix

M. R. Denison has joined Bendix Home Appliances, Inc., South Bend, Ind., as purchasing agent, it is announced by H. L. Spencer, vice president in charge of manufacturing.

With 32 years' experience in production and purchasing for automotive manufacturers, Denison came to the home appliance manufacturer from the White Motor company, Cleveland. He previously was employed in executive positions for 24 years by Studebaker corporation in Detroit and South Bend.

A.C.S. Pittsburgh Section February meeting

H. J. Rose and Stuart M. Phelps will tell the Pittsburgh Section of the American Ceramic Society, at the February meeting, of their experience and observations in Germany.

The meeting, to be held at 8:15 P.M. Tuesday, February 12, at Mellon Institute Auditorium, will follow a dinner at Webster Hall at 6:30.

Dr. Rose, executive vice president of Bituminous Coal Research, Inc., will speak on the subject "Glimpses of Western Germany, Summer, 1945." His talk will be illustrated by motion picture.

Dr. Phelps is Senior Fellow of the Refractories Fellowship of the American Refractories Institute. The title of his paper is "Comments on the German Refractories Industry during the War." It will contain a general description of the refractories industry in Germany from information collected by an investigating team sent to Germany by the United States Government at the close of the war. The subject matter will relate primarily to fire clay, silica, basic and carbon refractories, with comments on plants and their equipment.

G.E. honors ex-president with scholarship fund

A fund of $400,000 has been set aside by the directors of the General Electric Company to be known as the Gerard Swope Foundation. Mr. Swope served as president of General Electric for more than 19 years. When he resigned at the close of 1944, Mr. Swope had also served as a director of the company for more than 22 years.

The directors announced that the new foundation was created "as an expression of appreciation of Mr. Swope's great contribution as the leader and inspiration of the General Electric Company for so many years, and as a means of making this appreciation of enduring and constructive benefit to the company and to the electrical industry."

It is proposed to utilize the income of the foundation in the following ways:

In granting loans or scholarships to employees and to the children of present or former employees of the company and its affiliated companies, to help them pursue their work in any field of study and in any approved university, college, or technical school in the United States that they may select;

In granting graduate fellowships to the same classifications of individuals to be used by the recipient for graduate work in industrial management, engineering, the physical sciences, and in any other scientific or industrial field;

In granting loans, scholarships, or fellowships in any of the above fields to any other person that may be deemed worthy of assistance;

And finally, in granting graduate fellowships, to make contributions to the university, college, or technical school to help in defraying the cost of equipment and material, especially needed in connection with a research project.

The election of John W. Leslie, president of Signode Steel Strapping Company, to the Board of Directors of American Foundry Equipment Company, Mishawaka, Indiana, was announced recently by Otto A. Pfaff, president. Mr. Leslie is also a director of Pyke-National Company and Hammond Instrument Company.

Parady now with O. Hommel Co.

Frances R. Parady is now associated with the O. Hommel Company of Pittsburgh as sales representative in the Eastern States.

Mr. Parady has had many years of experience in the enameling industry. He was enameling superintendent of the Florence Stove Company, Gardner, Mass., from 1926 to 1943. He was discharged recently from the Navy where he served since 1943.

more news — Page 50 →

Furniture and appliance marts

(Continued from Page 28)

Tennessee Enamel Manufacturing Co. have long featured porcelain enamel as the logical exterior finish for room heaters.

minimizing profit incentives thus depressing production and perpetuating constantly the apparent need for price control. . . .

"Merchants have no disagreement with the need manufacturers have demonstrated to the price agency for the increase granted them. If, as OPA hopes, it will bring back into the market a greater supply of lower price furniture, it will be a highly desirable achievement. . . .

"You will be interested to know that upwards of 85% of the merchandise sold in retail furniture stores is now under some form or other or margin squeeze. In other words, the cost to retailers has gone up — the price to consumers remains the same."

Carloads of "new" merchandise

Hundreds of carloads of merchandise were delivered to the two large mart buildings immediately prior to opening of the market, with 110 carloads a day being delivered during the five days preceding the opening. This merchandise was shipped to Chicago to represent the 1,000 firms who have space in Chicago's two mart buildings. Among these 1,000 exhibitors there are 130 major appliance manufacturers. A possible total appliance business of $1,600,000,000 during 1946 was estimated by Mr. Whiting.

Exhibits more elaborate

Many large producers of household appliances have added to their exhibit space and installed extremely attractive and elaborate showings of their merchandise. Among these are such companies as Frigidaire, General Electric, Westinghouse, Norge, Kelvinator, Admiral, to mention only a few. The trend in most instances is to dealer education through the demonstration of proper store display, either by use of actual sectional display areas as would be recommended for a store installation or the illustration of proper store layout through the use of "miniatures."

Dealers evidenced great interest in this display technique and quite obviously are giving considerable thought to store arrangement and modernization for the sale of great quantities of household appliances which they *hope* to get in the not too distant future.

Porcelain enamel well represented

Porcelain enamel was very much in evidence in most of the displays of major appliances. Nothing could be found but porcelain enameled tubs on the washing machines, and in many instances other important parts of the washers have turned to porcelain enamel for resistance to rust, corrosion and abrasion. Porcelain enamel retains its place as the standard finish for ranges, both gas and electric, and can be found on the leading quality lines of some of the home heaters, both the radiant and circulating types.

Refrigerator manufacturers are still backward about promoting porcelain enamel for exterior use. This was charged by at least one manufacturer to the fact that the early lines produced were all of the standard variety with the better deluxe lines yet to come. Interiors, of course, where

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This small section of the Norge exhibit at the Furniture Mart admonishes the visitors to "See Norge Before You Buy."

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Packaging exposition at Atlantic City

Sponsored by the American Management Association, the 1946 Packaging Exposition will open in Atlantic City's Public Auditorium on April 2 for a four day showing. There will be an assemblage of 120 or more company exhibits occupying an area of nearly four acres.

Coincident with the Exposition will be the AMA Packaging Conference.

Change in date for A.G.A. Conference

The A.G.A. Conference on Industrial and Commercial Gas originally scheduled in Toledo, Ohio for Thursday and Friday, March 28 and 29, has been moved one day to Friday and Saturday, March 29 and 30. It will be held at the same location, the Commodore Perry Hotel.

Westinghouse now producing electric ranges

New 1946 electric ranges, said to embody new engineering developments in the construction of surface heating units, have been announced by R. M. Beatty, manager of the range department of the Westinghouse Electric Appliance Division.

Initial production is centered on a new "champion" model, a medium-priced range, and the company says that shipments of the new ranges to distributors will be made under a plan which permits displaying the new range at approximately the same time throughout the country.

Plans call for the production of a complete series of models from large two oven size to small apartment sizes as well as a combination fuel-electric model for areas where the range may be used for room heat as well as for cooking.

Pittsburgh section December meeting

Ceramic Activities at Pennsylvania State College was the topic of the evening at the ACS Pittsburgh Section meeting held Tuesday, December 4 at Mellon Institute. One hundred and thirty members and guests attended the meeting at 8:15 P.M., while 72 were present for dinner at Webster Hall.

One of the speakers, E. C. Henry, Chief of the Division of Ceramics at Penn State, described the organization of his department and outlined the scope of its activities. He also told something of the Pennsylvania Ceramics Association organized at State College November 9.

The following officers were elected to serve until June, 1947:

Chairman: A. Paul Thompson, Mellon Institute.

Vice Chairman: John W. Jordan, Mellon Institute.

Secretary: J. S. Nordyke, The Eagle-Picher Company

Treasurer: Louis A. Smith, Jones & Laughlin Steel Corp.

The new Executive Committee met Monday night, December 17, to select committee chairmen and to plan the schedule for the coming year.

A.W.I.M.A. Committee chairmen announced

The following chairmen have been announced by the American Washer & Ironer Manufacturers Association to head eleven working committees:

OPA Committee — B. J. Hank, Conlon Corporation

Industrial Relations Committee — E. C. Buchanan, Apex Rotarex Corp.

Ironer & Dryer Committee — A. E. Askerberg, Horton Mfg. Co.

Traffic Committee — John J. McConville, Westinghouse Electric Corp.

Engineering & Research Committee — P. Eduard Geldhof, 1900 Corporation.

Advertising & Market Research Committee — W. Neal Gallagher, Automatic Washer Co.

Associates Committee—Carl L. Huff, Bliss & Laughlin

International Markets & Trends Committee — W. H. Reeve, Easy Washing Machine Corp.

Executive Committee — Louis C. Upton, 1900 Corporation

Finance Committee — B. J. Hank, Conlon Corporation

Government Committee — Judson S. Sayre, Bendix

Frigidaire building deluxe appliances

P. M. Bratten, general sales manager of Frigidaire, announced recently that a new deluxe seven cubic foot refrigerator and a deluxe electric range are both available through Frigidaire dealers. These represent the first "deluxe" appliances manufactured by Frigidaire since the resumption of peacetime production.

Dayton retail prices are $180.75 for the DI-7 refrigerator and $238.03 for the BI-60 range. The range is, of course, all porcelain. In describing the refrigerator finish, Fridigaire states: "The interior finish of this refrigerator, including the inside door panel, is porcelain. The finish on the food compartment is acid resisting porcelain."

Heckathorn is executive vice president of Mullins

Mullins Manufacturing Corporation has announced the appointment of Harry M. Heckathorn as executive vice president of the corporation, and Frank M. Beauregard as operations manager of the company's plants in Warren and Salem, Ohio.

Heckathorn has been an operating vice president since 1938, first in charge of the firm's Warren plant and later in charge of the Salem plant, also.

Beauregard comes to Mullins from the Willys-Overland Company of Toledo, where he had been works manager since 1943. Previously he was general works manager for the Crosley Corporation of Cincinnati. He has also held the positions of production manager of the refrigerator division of Kelvinator Corporation, and works manager of the Nash Automotive plant.

New Chicago jobbing plant

Lawndale Enameling Company is the name of a new jobbing plant which is to start operations March 1st at 1137 West 14th Street, Chicago.

Principals in the company are Art Lander, Walter Keene, Elden Keene and Leonard Lodestro. Art Lander, Leonard Lodestro and Elden Keene were all former employes of the en-

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UNUSUAL . . . yes!

designed and built by Verson . . . yes!

•

Verson is the originator of allsteel welded construction in the manufacture of stamping and deep drawing presses.

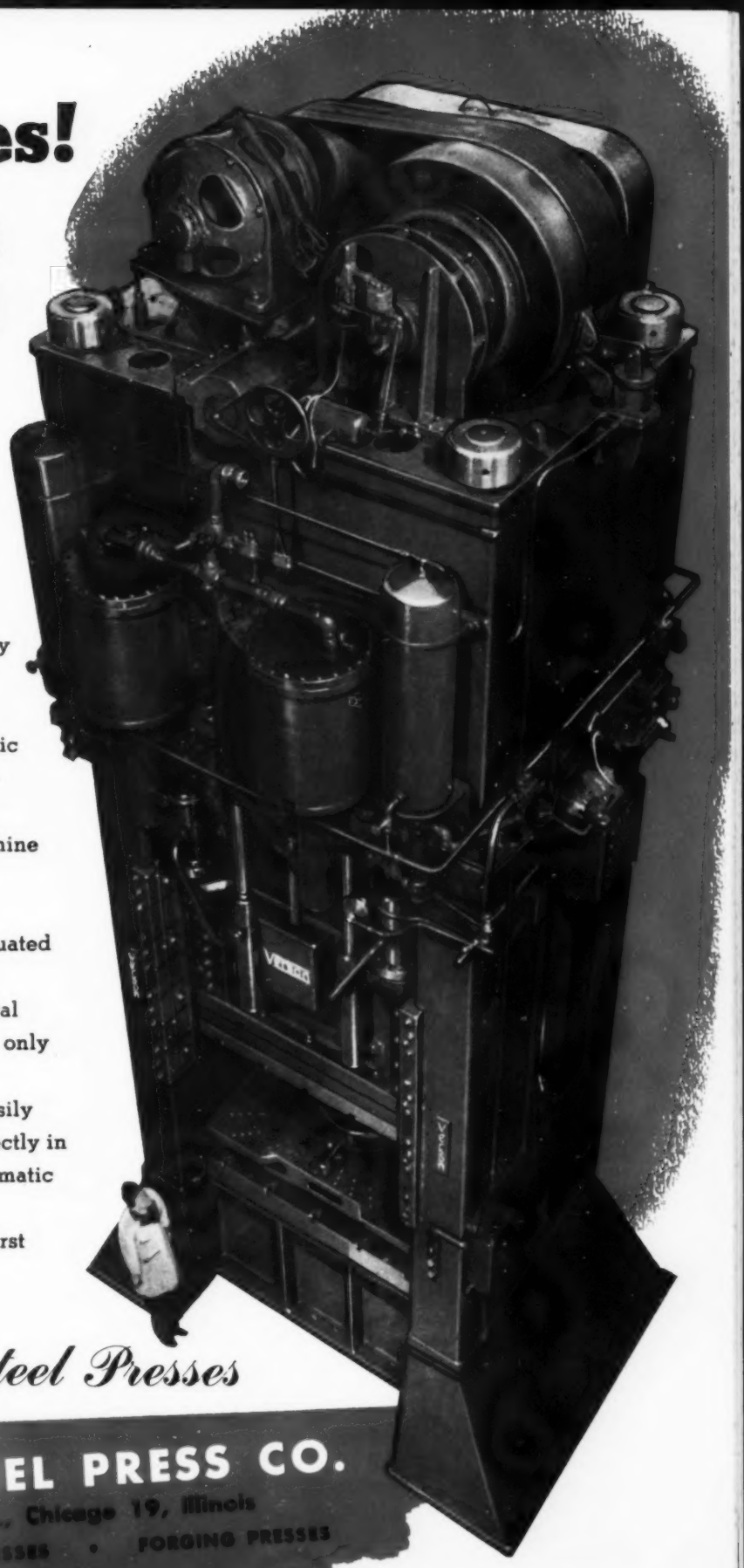
HERE is another example of Verson's ability to build presses that offer maximum efficiency and economy for every requirement.

This combination mechanical and hydraulic press was designed to produce aircraft nose sections in a single draw. It is an 800 ton single point suspension, double action machine capable of making a draw 25" deep at the rate of 6 strokes per minute.

The punchholder ram is mechanically actuated while the blankholder ram is hydraulically actuated—giving it the speed of a mechanical press and the blankholder sensitivity found only in hydraulic operation.

Blankholder pressure at each corner is easily adjusted by knobs, with pressures read directly in tons on gauges. The press has a hydro-pneumatic cushion in the bed for triple action work.

To the best of our knowledge this is the first successful press of its type ever built.



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DIE CUSHIONS

Write for catalog E-44.

The Washington round-up

(Continued from Page 39)

include but are not limited to, table broilers, vibrators, hairdriers, vaporizers, toasters, space heaters, coffee makers, irons, hot plates, waffle irons, mixers and shavers.

The margins provided in the order are 35 and 33 per cent for retailers who purchase from resellers in large and small quantities respectively. For distributors who purchase from manufacturers who prepay or allow freight, the margins are 16.5 per cent when sales are made in large quantities and 20.2 per cent when made in small quantities.

Tin quotas increased

Tin oxide will benefit from an across-the-board increase in tin quotas granted by CPA. The permitted use of pig tin for chemicals is increased to 200 per cent of the corresponding 1945 quarter from the former permitted use of 100 per cent of corresponding 1944 quarter. Manufacturers of equipment for preparing and handling food may use either the permitted use in 1944 quarter or that of the corresponding quarter of 1940, whichever is greater. Former use permitted 1944 quarter base or 15 per cent of 1940 quarter. Industry pressure resulted in the announcement of the increase although the tin supply situation shows no improvement.

The President recently told a group of business paper editors that if the people responsible for the widespread strikes now holding up reconversion would stop to realize the effect of their action, which is heading the country toward inflation, they would settle their differences immediately. After four years of fighting inflation and holding the line it is now feared by top Government officials that the price increases which management is demanding as the price for submitting to union wage demands will break down the price control structure and turn loose unbridled inflation. Full production of goods and the resulting normal leveling off of prices is the only early answer to release from price control and removal of the danger of inflation, according to the Government view.

Wage-price battle in "Steel" finds O.P.A. a "spectator"

The OPA has stepped aside in the recent wage-price controversies. In the steel case, OPA has indicated that an increase of $2.50 a ton in the ceiling price of steel products would be granted, based on the operations of the industry during the final months of 1945. If an increase of $4 a ton is granted to satisfy a negotiated wage increase, it will have to come from the White House. OPA, under the law, cannot grant an increase based on contemplated wage increases. So, the real battle of inflation may be fought with OPA as a spectator rather than a participant.

BULLETIN

Titanium dioxide

The Civilian Production Administration has taken steps to increase the supply of titanium dioxide which is currently running behind requirements by 100,000 tons annually.

The shortage is so serious as to threaten increased production of peacetime products. The measure taken by CPA is to assign CC ratings under PR 28 where necessary to maintain or expand production of titanium dioxide. Producers may apply for the rating to obtain capital equipment, production materials, or materials for construction of new plants.

Production of titanium dioxide is now 100,000 tons annually with requirements at 200,000 tons. New facilities will be ready in July to bring in 10 percent additional production and another 10 per cent is expected later in the year.

Furniture and appliance marts

→ *from Page 48*

the finish must take the "gaff," were porcelain enameled. The big attention in this field at present is to frozen food lockers.

In the kitchen furniture field it is reported that there were a number of exceptionally attractive kitchen table and breakfast set designs using porcelain enameled tops on display in individual exhibits not connected with the general household appliance display floors. Of these viewed by your reporter at the display there were few using porcelain enamel. This was charged by some manufacturers to the fact that porcelain enameled tops are still in extremely short supply.

Among the conglomeration of other table furniture on display, those viewed by your reporter could, for the most part, be described as "sad." One line had tubular steel supports heavy enough to support the Brooklyn Bridge; another had wooden tops with the grain showing through the finish so clearly that it looked like brush marks in the finish. Others had tops of linoleum, plastic and, from every indication, "anything" that was available.

This would appear to be a fine opportunity for the manufacturers of porcelain enameled tops to do their best possible job in design cooperation and fine finishing, and thereby assist the table producers in raising their line far above the standards described.

The Board of Governors of the American Furniture Mart have set the Winter and Summer Market dates for the next two years. The Merchandise Mart management announced that its markets would run concurrently with those of the Furniture Mart.

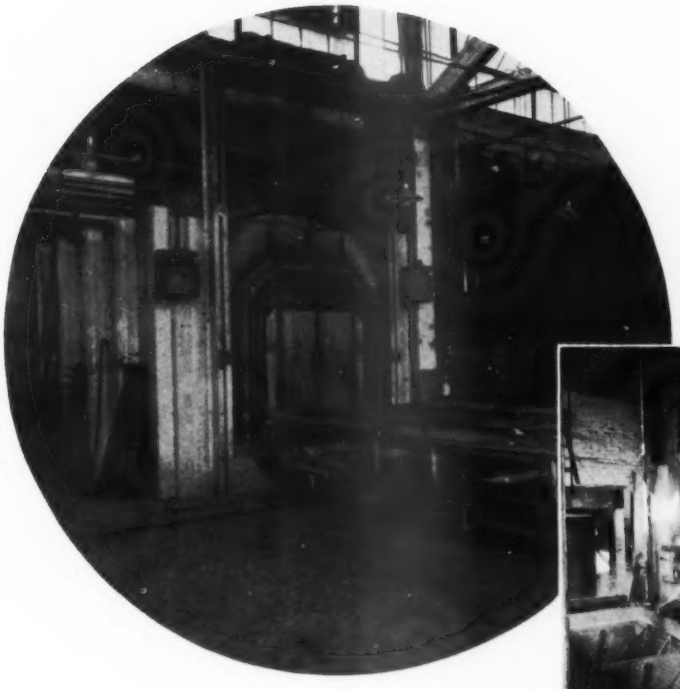
The dates confirmed are:

Summer, 1946 — July 8-20
Winter, 1947 — January 6-18
Summer, 1947 — July 7-19
Winter, 1948 — January 5-17

In setting the dates for two years, the Board of Governors is following the traditional pattern for Winter and Summer Market dates, which for a great many years have opened on the Mondays following New Year's Day and the 4th of July.

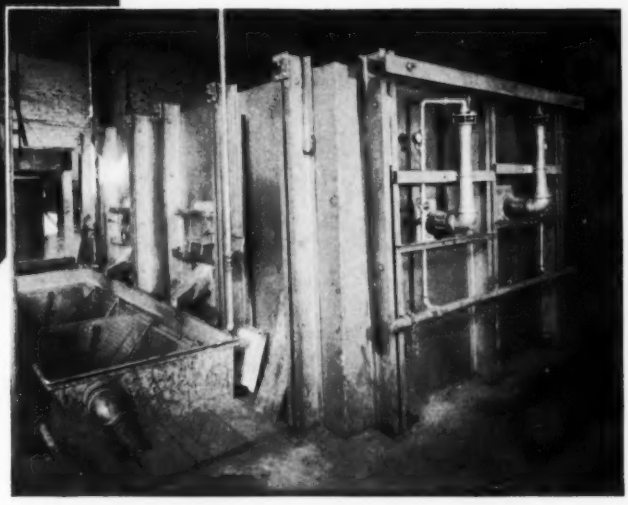
The Furniture and Home Furnishings Industries, convention bureaus, hotels, railroads and airlines and all interested groups will be notified at once of the dates.

IT'S HUYCK FOR CONSTRUCTION...MAINTENANCE ...OR BOTH!



Typical box type enameling furnace installed by Huyck. This furnace has had 10 years of continuous operation.

← — — —



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Typical porcelain enamel frit smelter built by our organization.

★ ★ ★ Yes, we build furnaces and smelters of all types. Add to twenty-four years of experience in the construction of enameling furnaces and smelters wartime experience in the construction of many specialized furnace installations for heat treating and other war jobs, and you have the experience that is back of Huyck Construction Company installations.

★ ★ ★ We are interested in more than new furnace construction. We have equal interest in the maintenance of your furnaces and other installations requiring expert masonry work. We want more than the "first job"—our aim is repeat business.

★ ★ ★ For your new construction job—for rebuilding your furnaces or smelters—for mill lining work—and for other maintenance work—consult with us before placing your next contract. We stand back of every job we do.

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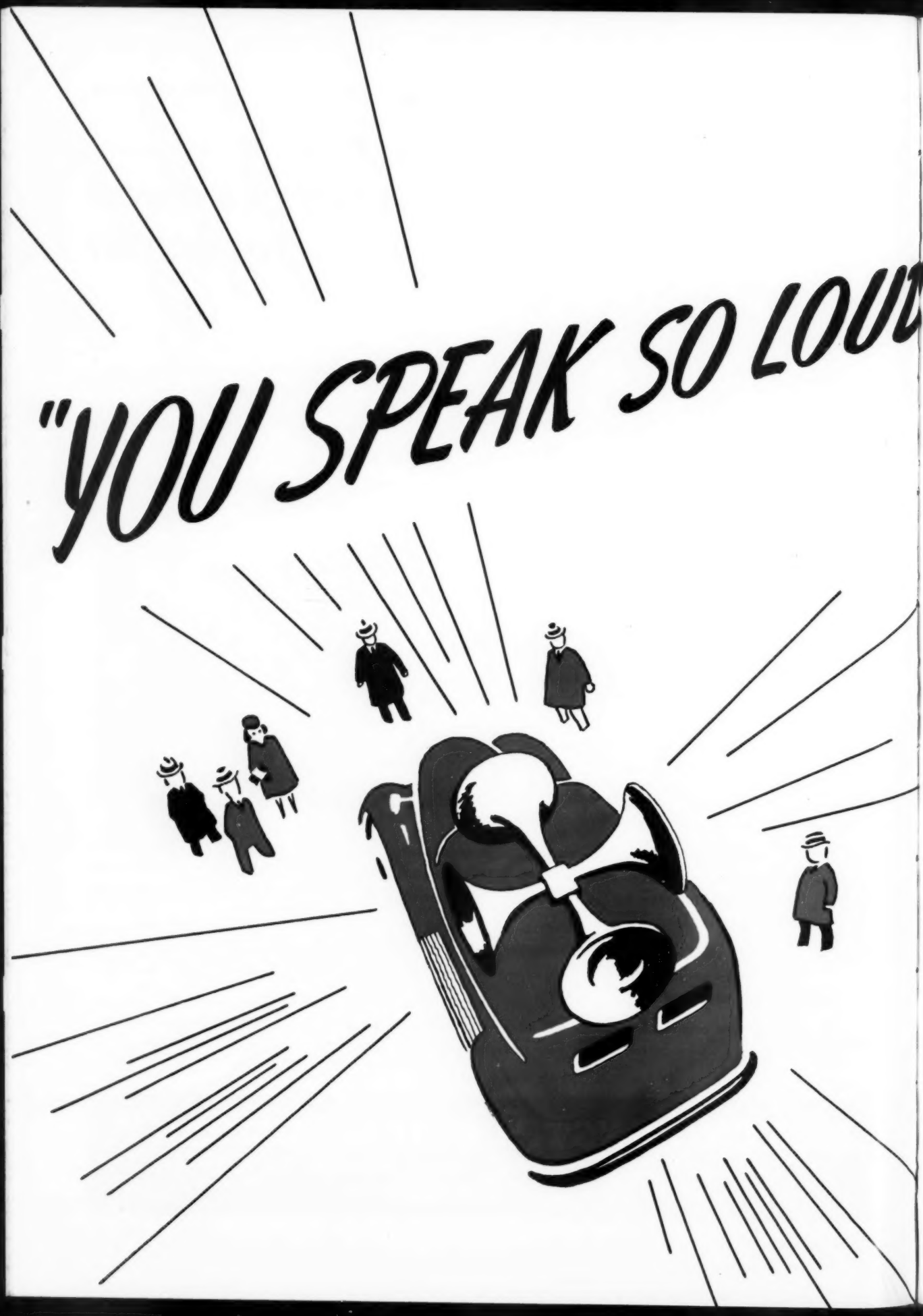
"YOU SPEAK SO LOUD

The Quality of Pemco Frit and Colors is a tempting invitation to go Hollywood and string superlatives across the printed page . . . . . Fine words alone, however, can never lower costs or give you uninterrupted production, so . . . . . "we never speak so loudly that you cannot hear what we say."

. . . . . To assure consistently uniform quality in our frit we developed (patented) and operate the only wholly continuous smelters (5) in the the industry . . . . . To eliminate the possible chance of human error these smelters are electronically controlled . . . . . To maintain absolute control over raw materials and finished product we have brought together the finest group of Technicians and Research Engineers we could find . . . . . To give them the proper tools to work with seven complete laboratories have been fitted with the most modern equipment available . . . . . But of equal importance to all of this is our willingness to "serve". . . . . To help you . . . . even though you are not a Pemco Customer . . . . . These are the things that have contributed to our growth . . . . . They are not found in adjectives but spring from wells deep within the heart and soul of a business — a business like yours . . . . . like ours.

If you would like to do business with a company like this we know we'd like to do business with you.

PEMCO CORPORATION

BALTIMORE MARYLAND

"ALWAYS BEGIN WITH A GOOD FINISH"

→ *from Page 50*

ameling division at Cribben and Sexton Company. It is understood that Walter Keene is interested in the company but will not be active in its management.

According to the report, Lawndale Enameling Company will do both cast iron and steel jobbing work. It is understood that the new company plans to specialize in "small" parts.

Several Chicago jobbing plants went out of the enamel jobbing business during the war and one plant that burned has not been replaced. The owners expect Lawndale Enameling to fill a need for jobbing facilities.

"Pig Roast" to be revived by ceramic students

An old custom of having a Pig Roast will be revived soon by the Student Branch of the American Ceramic Society at the University of Illinois. Originally (fifteen or so years ago) the heading could be taken literally, as a pig was roasted in one of the kilns in the Kiln House. The program for a future meeting, however, will call for a banquet with a china pig as a souvenir. The "roast" will come in the form of roasting stories on the Professors, say the Seniors.

At a recent meeting of the S.B.A.C.S., Dr. R. L. Cook was the featured speaker. His talk was on "Wartime Ceramic Developments in Germany." Dr. Cook, it will be remembered, spent some time in Europe last summer as a Technical Representative for the Army Air Forces.

Wheeler returns to Chicago Vit

Lt. Col. P. M. (Port) Wheeler has returned to his old job at Chicago Vitreous Enamel Product Co., after serving four years in the Army — one and one-half years of which was spent in the South Pacific and in Japan.

"Port" was graduated from the School of Ceramic Engineering, U. of I., in 1938. He was active in the R.O.T.C. and entered the army to serve one year upon graduation. After this period he came to Chicago Vit to work in the laboratory on research problems and was later promoted to sales and service.

On re-entering the army, he attended school at Ft. Sill, Oklahoma, and then was assigned to the 136th F.A. Bn., 81st Infantry Division — the famed "Wildcat Division." After participating in the invasion of the Palau Islands, he began training activities on Leyte for the invasion of Japan. The 316th F.A. Bn., of which Port was commanding officer, was to land on Kyushu. When Japan surrendered it became a part of the occupation forces in Northern Honshu.

Port is working in the Chicago Vit laboratory now, but according to the report will be back in the field again following a "brushing up" period.

McCray executive at his desk following operation

Friends of J. W. Hart, executive vice president of McCray Refrigerator

Company, Kendallville, Indiana, will be pleased to learn that he is recovering satisfactorily following a recent operation. Mr. Hart was at McCray Memorial Hospital for the operation but is now back at his desk.

International Lighting Exposition program announced

When the International Lighting Exposition convenes in Chicago's Stevens Hotel next April 26, one of the great purposes served will be that of focusing the nation's attention on the need for a fuller and more intelligent use of lighting in Industry, Business, Stores, Farm, Home and Schools.

Lighting authorities on the Conference Program will attempt, through a series of four morning conferences, to make better known the practical applications of the newest developments in illumination. Tickets to the conferences are available to architects, electrical contractors, wholesalers, industrial executives, illumination engineers, schoolmen, business men, public officials, utility personnel, railroad officials, oil company executives and all other industrial and commercial officials concerned with lighting. The conference program, as announced, is as follows:

Friday, April 26: 9:30 to 12:30 — "New Lighting Trends and Methods"

Saturday, April 27: 9:30 to 12:30 —"Lighting Sales Forum for Electrical Contractors"

Monday, April 29: 9:30 to 12:30— "Industrial Conference on Lighting Service and Lighting Sales Training"

Tuesday, April 30: 9:30 to 12:30 —"Lighting Application Forum"

Each Conference session will feature men who are recognized as outstanding in their subject. These conference sessions will afford opportunity for round table discussions and forums on practically all subjects related to the application, utilization, and sale of lighting equipment. To the store owner, service station operator and dealer, it will afford opportunity to learn how to better use light to increase sales; to the industrial executive, to increase production, reduce accidents and conserve eyesight; to the school executive, the improved use of latest lighting techniques to improve educational results and conserve the nations' eyesight; to the electrical contractor and utility man, the new ideas in the technique of more effective presentation of the newest developments in lighting and their value to the customer.

"What's new in lighting?" will be answered by over sixty leading lamp, lighting equipment and manufacturers of finishes and other products which are directly related to illumination. The entire Exhibition Hall of Chicago's Stevens Hotel will be required to display these products and answer the question: "What's New in Lighting?", the exposition committee states. The Exposition will be open every day from 12 noon to 6 p.m. Friday, Saturday, Sunday, Monday and Tuesday, April 26 to 30.

The list of exhibitors includes a number of companies well known in the enameling field. The following is a partial list:

Benjamin Electric Mfg. Co.
Bright Light Reflector Co.
Curtis Lighting, Inc.
Day-Brite Lighting, Inc.
General Electric Lighting Division
Holophane Co., Inc.
The Jones Metal Products Co.
The Miller Company
Overbagh & Ayres Mfg. Co.
Quadrangle Mfg. Co.
Sylvania Electric Products, Inc.
Westinghouse Electric Corporation and
Wheeler Reflector Company

Among the many new lighting developments which Exhibitors have announced they will display, many of them to be shown for the first time, are the following: completely redesigned fluorescent lighting units of porcelain enameled steel, plastics and other materials; open tube, glass enclosed and louvre types, troffer units, flush and suspended mounted units, cove units, built-in units, hot and cold cathode fluorescent auxiliary equipment, lamp holders, etc., explosion-proof, aviation, street, subway, viaduct and pit lighting equipment; sportsfield, service station and other flood-lighting units.

Invitation tickets to the Conference and Exposition are available from any exhibitor, any member of the National Electrical Wholesalers' Association, International Lighting Exposition, office of the Exposition Manager, 111 W. Jackson Blvd., Chicago, Illinois, or local electric league or electric association.

New Presteline electric range

The accompanying photograph shows the design characteristics of the new Presteline electric range to be manufactured by the Domestic Appliance Division of Pressed Steel Car Company, Inc., builders of a new line of major home appliances, all of which will bear the Presteline name.

In referring to the new range, A. Raysson, general sales manager, said: "A single floor demonstrator of the new Presteline range actually takes the place of three separate appliances because with each range comes a choice of one of three separate and distinct top-range cooking unit arrangements. Thus, the range customer is given a choice of any one of three top-stove arrangements that were proved most popular with 97% of American housewives — in a poll conducted by leading women's magazines and other independent agencies . . . "

In announcing the OPA approved prices that the consumer will pay for a Presteline range, Raysson explained that "The retail prices of our ranges will vary somewhat because of freight rates, and the distance from Chicago

to where our established distributors are located." He added, "The retail prices as quoted do not include the Federal Excise Tax."

The Standard model No. S-100 is priced to the consumer at $173.25 in zone one, $176.95 in zone two, $180.75 in zone three and $184.50 in zone four.

New Enameling company called Porcelain Enamel Finishers

Announcement has just been released of the organization of a new company to do porcelain enamel jobbing work. Organizers of the company are Leo Goldberg and Ray Gutman. The new company name is Porcelain Enamel Finishers, and the company address is 3221 West 30th Street, Chicago 23, Ill. The plant is expected to be in operation about February 15. Production will be confined to enameling on steel.

Mr. Goldberg has been a ceramist at Altorfer Bros., Peoria, Illinois; a civilian engineer for the Navy during the war, and was then ceramic engineer for Harper J. Ransburg Company, Indianapolis, Indiana.

Mr. Gutman spent 7½ years as a ceramist with Ohmite Manufacturing Company, Chicago. Both are University of Illinois graduates.

New company in New Orleans to do porcelain enameling

Industrial Enameling, Inc. is the name of a newly organized company in New Orleans, La., to serve the surrounding territory as a porcelain enamel jobbing plant. Officers of the company are: E. M. Brignac, president; H. J. Agular, vice president; R. R. Oelsner, secretary and general manager; and Henry G. Brignac, Treasurer. Mr. Oelsner is said to have owned and operated a large enameling plant in Europe prior to the war.

In commenting on the company's plans, Mr. Henry J. Agular said: "We will be a jobbing plant equipped to do sheet iron enameling, as well as cast iron enameling. We intend to produce mainly flat ware, like table tops and signs, stove parts, refrigerator parts, and architectural enamel. Foundations are in for a single flow continuous furnace and erection will start by February 1st. We hope to be ready for operation by April 1st."

It is reported that the Tyler Fixture Company of Niles, Michigan is

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Old Timer's Club

→ *from Page 41*

and, in contrast, many predictions of a grand future for the porcelain enameling industry. The feeling of the group may be summed up in the words of Bennett Chapple: "It was the faith, vision, aggressiveness and encouragement of these men that has raised the industry to its present high level. Much of the responsibility of carrying on will soon pass on to the younger men who are rising to assume active leadership, but it is to the "Old Timers" that we will still look for the wise direction and the inspiration that will be needed in the difficult years ahead."

opening a subsidiary plant in Waxahachie, Texas, to manufacture their line of products. Mr. Wickham is the branch plant manager and Mr. Houston is the purchasing agent.

G.A.M.A. develops "kitchen ventilation"

The Gas Appliance Manufacturers Association reports that extensive experiments on kitchen ventilation have resulted in several new ventilating developments. They provide for not only removing heat from the kitchen but practically all cooking odors and this is accomplished directly at the cooking center. Along with kitchen ventilation, the industry will offer a complete line of kitchen cabinets so that the retailer can merchandise both gas-designed appliances and coordinated kitchen cabinets with ventilating equipment.

So that architects and builders may have all the information they need, the American Gas Association is completing an architects' and builders' reference manual. In addition to information on sizing and installing appliances, the manual contains suggested kitchens and home plans, and specification sheets on individual appliances available from each participating manufacturer.

New Texas sign plant

McMath-Axilrod Corporation is reported to have purchased the Ralite Sign Co. of Dallas, Texas, and will operate as a producer of porcelain enameled signs. Plans are said to include the expansion of fabricating facilities.

J. B. McMath was formerly, and for many years, associated with Texlite, Inc., Dallas sign producers, in an executive capacity. Mr. Axilrod also comes from the Texlite organization. The Ralite Sign Co. was formerly owned and operated by Harry Sellers.

Foote Mineral post war preparations

Foote Mineral Company, Philadelphia, is already well along in its expansion and modernization program, says a recent report.

The milling and processing facilities are being centralized in thirty acres at their Exton, Pa. plant where a new mill building and a large new warehouse are being erected. Ores and minerals from all over the world will be processed at this plant.

The many additions to the personnel of the Sales and Purchasing departments have made it necessary to remove the entire office staff from the old 1609 Summer Street location to more spacious and modern quarters occupying the entire fifth floor of the Germantown Trust Company Building, 10 East Chelten Avenue, Philadelphia 44, Pa.

Avoid the use of harsh abrasives when cleaning porcelain enamel. The ware has its own natural lustre that will last a lifetime, without any polishing if it is properly cared for.

Porcelain enamel goes UNDER the sea

(Continued from Page 16)

side trade, our products being architectural parts, enameled signs and separate letters and general miscellany of jobbing operations such as store fixture parts, scale parts, etc., together with special work in enamel murals and other experimental applications. When the United States entered World War II, we were confronted with the choice of converting our facilities to production other than porcelain enamel or to convert our product to uses in furtherance of the war effort. We chose the latter course and its development has been exciting. Although a large part of our plant facilities has now been returned to our peacetime production, we are continuing this work. We do not know how far it will take us, but confidently expect that it will carry on to greater usefulness. Corrosion has always been a problem in marine work in peacetime as well as war. We feel that special porcelain enamels for marine use offer a protection of demonstrated usefulness in the constant battle against corrosion.

E. U. M. C. directs an educational program to the FUTURE American housewife

(Continued from Page 18)

the public interest and enthusiasm which their educational program has aroused for porcelain enameled ware cannot help but have a tremendously stimulating effect on the sales of the entire porcelain enameling industry in the years to come.

Not only will there be a greater interest in the ware among housewives, eager to reoutfit their kitchens with new utensils, but the retailer will be dealing with constantly increasing numbers of customers who are educated in the proper use and handling of the product. This will make for satisfied customers — customers who will come back for more and more porcelain enameled ware.

Porcelain enamel goes to the farm

(Continued from Page 17)

way has been provided at the base.

Results to date indicate achievement of primary purposes

Since the middle of November, 1945, silage has been unloaded from the experimental installation at the rate of about one ton per day for feeding a herd of forty-six Brown Swiss cattle. It is planned during the summer of 1946 to experiment with the storing of green hay.

In commenting on the results to date an A. O. Smith executive stated:

"There were three primary purposes in the experiment which were as follows: (1) to demonstrate that the glass surface would withstand the corrosive action of the highly acid silage; (2) to demonstrate that the silage could be preserved without spoilage; and (3) to prove that a mechanism could be devised which would unload the silo from the bottom.

"We now can state definitely that all three objectives have been attained. Certain mechanical changes have been made in the unloading mechanism already and others are being contemplated. Questions concerning the design of the silo itself have not been settled definitely. There are several manufacturing details which are still to be determined, but the important thing is that the three principal objectives were realized."

An appraisal of the general business outlook

(Continued from Page 22)

the common tonnage steels. A few years ago Belgian mills were laying down wire nails 100 miles inland from the Texas Gulf Coast at a price per ton lower than our cost on the rods from which we draw the wire to make the nails.

Our export manager has some highly optimistic views on conditions which he says will change this situation. He points out that not only will our conquests open up markets that heretofore have been almost completely dormant as steel consumers, but that the German, Japanese, Belgian and French steel industries will be largely eliminated from world markets for years to come. He thinks the total output of French and Belgian mills will be required to rehabilitate western and central Europe, including Germany. It is fairly apparent that that part of the German steel industry which has not been destroyed will be rigidly controlled. Germany will have nothing left with which to rebuild her heavy industries. Anything that is done along this line will be with the cooperation and consent of the Allies. It isn't likely that Germany will be permitted to become much of a factor in world steel markets.

It is interesting to note that the French, Belgian and Czech steel industries have been spared, though all have been producing for our enemies. The bombing of the Skoda Works at Pilsen in Czecho-Slovakia was primarily to destroy the heavy ordnance works. A steel plant as such at that location probably would not have been touched.

The Japanese steel industry is scheduled for the same fate as the German, as well as her other heavy industries.

Russia, being nearly self-sufficient, is expected to devote many years after the war to rebuilding her shattered cities. She will also complete the movement of key industries east of the Urals, so she never again can be crippled by a sudden invasion from the west. Having learned by bitter experience what an inadequate rail and highway system can mean to a nation at war, Russia is expected to begin the building of a great rail and highway network and develop Siberia intensively. This will require continued industrial growth in Russia.

to Page 64 →

5 IMPORTANT POINTS

YOU can count them on either hand, and any way you count them, you still obtain five reasons why Ing-Rich frits are the finest obtainable.

We have been manufacturing these versatile frits for almost a half a century, and they have been used very successfully on virtually everything from pins to locomotives.

Why not let us prove the following important points? Contact us NOW by phone, wire or letter and we will be glad to send a representative, with no obligation, of course.

1. **LOWER MILL BATCH COST.**
2. **BETTER ADHERENCE RESULTING IN LESS REJECTS.**
3. **A HIGHER PERCENTAGE OF ONE COATS.**
4. **WIDE BURNING RANGES, A SAVINGS IN TIME AND MONEY.**
5. **HIGHER REFLECTANCE AND A MORE UNIFORM COVERAGE.**

Ingram-Richardson Manufacturing Co.

OF INDIANA *INCORPORATED*

FRANKFORT **INDIANA**

ING·RICH PORCELFRIT "The Plant Tested Frit"

Central district enamelers club meeting

(Continued from Page 25)

"How the Central District Enamelers Club Can Aid the Industry," encouraged the group to renew their strong interest in Club activities and build the Central Club into a position of playing a leading role among porcelain enameling groups.

Following his talk, Mr. Clawson introduced Dana Chase, secretary-treasurer of the Chicago District Enamelers Club, who described the setup of the Chicago Club with respect to officers, committees, membership and policy. Mr. Chase also tossed a question to the group as one that had been presented to *finish* by various porcelain enamel plant men. This question concerned the advisability of coordinating the activities of the various sectional Enamelers Clubs with the possibility of Club officers meeting once a year to discuss cooperation, the meeting to be held at a time of one of the national ceramic or enamel meetings at which the majority would logically be in attendance. It was made clear that the suggestion was passed on solely as information, and no current action on the part of the Central Club was suggested.

In a brief discussion of the possibility of such coordinated activity, Ernest Hommel, O. Hommel Company, Pittsburgh, pointed to the fact that there are already adequate national organizations such as the Porcelain Enamel Institute and the American Ceramic Society, and questioned whether an additional national organization would be necessary to further the interests of the industry.

President Stolte said that club coordination might be helpful and that it is probable most of the officers of the various clubs would be in attendance at one or more of the present national meetings if it is found desirable to hold meetings as suggested to further the interest of the individual Clubs through cooperation.

It seems to be the feeling of those suggesting such cooperation that the Enamelers Clubs present the best opportunity for the *plant men* to work together. *Finish would welcome comments from readers — pro and con — on this suggestion.*

Future plans announced

President Stolte announced that at the next regular meeting of the Club, tentatively scheduled for March 22, there would be an election of officers, followed by the appointment of the necessary acting committees by the incoming president. These incoming officers and committees will direct the Club activity for one year following election. He made interim appointments to handle the necessary business of the Club and assure the success of a second meeting.

W. N. Noble, Ferro Enamel Corporation, was appointed acting secretary and treasurer to fill the vacancy created by the resignation of Burton Longwell, Republic Steel Corporation, who said that while the pressure of current business activity made it necessary for him to resign as secretary and treasurer he would give every support to the Club.

Committees appointed to further club plans

A program and publicity committee was appointed consisting of D. K. Bond, Ferro Enamel Corporation, chairmen; J. W. (Jack) Iliff, Harshaw Chemical Company; and Burton Longwell.

A nominating committee was appointed to prepare a slate for the forthcoming election. This committee consists of Claude Cleghon, Clyde Porcelain Steel Corp., chairman; A. W. Leeseberg, American Stove Company; Jack Trees, Apex Electrical Corporation, Sandusky, Ohio; R. D. (Bob) Evans of Chicago Vitreous Enamel Product Co.; and C. D. Clawson.

Judging from the spirit of this first postwar meeting of the Central District club, it seems safe to predict a bright future for the organization, now that the transportation problem is no longer a serious handicap.

As was pointed out by one of the speakers, the territory from which the Club's membership can logically

to Page 64 (column 3) →

This photograph shows Central District Enamelers enjoying their first Club dinner since V-J Day.

STYMIED BY COLOR PROBLEMS?

Color problems block fast production, cause rejects, reduce product quality, and nourish high costs and low profit.

That is why we believe it will be well worth your while to learn how completely and accurately Drakenfeld analyzes color requirements for porcelain enamel manufacturers and formulates colors of dependable strength and uniformity to "fit" your frits and to meet specific production conditions.

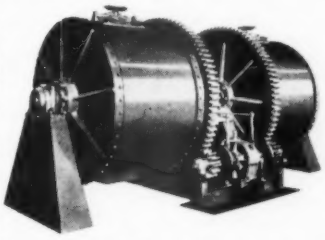
If you are stymied by color problems, let us have the facts. Our many years of experience and know-how in producing "tailor-made" colors for architectural or industrial purposes, for signs, and for home, institutional or professional utensils and appliances may be just what you need to help step up production volume and cut costs.

Full information about Drakenfeld service and colors is yours on request. Write today.

DEPENDABLE SERVICE ON: Screening Paste . . . Graining Colors . . . Squeegee Oils and Mediums . . . Spraying and Banding Mediums . . . Chemicals . . . Rotospray Sifters . . . Porcelain Grinding Balls . . . Porcelain Mill Linings . . . Steveco Mills.

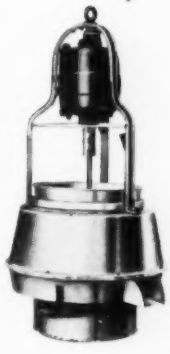
5 SAVINGS WITH STEVECO MILLS

Time - Labor - Horsepower - Floor Space - Initial Costs



Steveco high-efficiency duplex mills wet-grind porcelain enamel materials better, faster and at low cost. Many outstanding construction features proved in hard day-after-day service in many plants. Wide range of sizes and linings, with all types of drives. Write for catalog, then let us study your grinding needs and recommend the correct type for your requirements.

If it Flows ROTOSPRAY Can Strain It!



Saves time and labor. Strains through a vertical screen — no clogging. Long-life screen often saves enough to pay for the equipment. Standard and Junior sizes. May be suspended or placed on floor. Capacity ranges from 300 to 1,000 gallons per hour, depending on the nature and specific gravity of the product, screen mesh and size of sifter. Descriptive folder sent on request. Write for your copy today.

YOUR PARTNER IN SOLVING COLOR PROBLEMS **Drakenfeld**

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